This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

B 1,111,980

HD
8051
.A62

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . WHOLE NUMBER 176

WOMEN IN INDUSTRY SERIES: No. [illegible]

EFFECT OF MINIMUM-WAGE DETERMINATIONS IN OREGON

JULY, 1915

WASHINGTON
GOVERNMENT PRINTING OFFICE
1915

HD
8051
.A62

U. S Govt.
gt.
8-4-1922
gen gt.

CONTENTS.

Page.

Introduction and summary 5–10

Establishments covered and numbers employed in 1914 10

Numbers employed before and after minimum-wage determinations 11–17

    Changes in numbers employed compared with amount of sales 11–13

    Changes in numbers of girls, inexperienced women, and experienced women employed 13–17

Rates of pay before and after minimum-wage determinations 17–23

    All female employees 17–19

    Girls under 18 years of age 19, 20

    Inexperienced adult women 18 years of age and over 20–22

    Experienced adult women 18 years of age and over 22, 23

Average weekly earnings before and after minimum-wage determinations 24–28

Selling efficiency before and after minimum-wage determinations 28–31

Labor cost before and after minimum-wage determinations 32, 33

Portland department, dry-goods, and 5 and 10 cent stores 34–56

    Numbers employed before and after minimum-wage determinations 34–44

    Rates of pay before and after minimum-wage determinations 44–51

    Average weekly earnings before and after minimum-wage determinations 52–54

    Labor cost before and after minimum-wage determinations 54–56

    Summary of changes 56

Portland specialty stores 57–61

    Numbers employed before and after minimum-wage determinations 57, 58

    Rates of pay before and after minimum-wage determinations 58, 59

    Average weekly earnings before and after minimum-wage determinations 60, 61

Portland neighborhood stores 61, 62

    Employment of women before and after minimum-wage determinations 61, 62

Salem stores 62–67

    Numbers employed before and after minimum-wage determinations 62–64

    Rates of pay before and after minimum-wage determinations 64, 65

    Average weekly earnings before and after minimum-wage determinations 66

    Labor cost before and after minimum-wage determinations 67

Changes in rates of pay, occupation, and place of employment since minimum-wage determinations, as reported by women personally interviewed 68–75

Table I.—Changes in the industrial status of women employed in Portland and Salem department and other retail stores since the minimum-wage determinations went into effect 76–99

Table II.—Women who were not employed in October, 1914, but who had been employed prior to the time the minimum-wage determinations went into effect 100, 101

Appendix A.—Act creating Industrial Welfare Commission of Oregon 103-106

Appendix B.—Determinations of Industrial Welfare Commission of Oregon 107, 108

404292

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 176. WASHINGTON. JULY, 1915.

EFFECT OF MINIMUM-WAGE DETERMINATIONS IN OREGON.[1]

BY MARIE L. OBENAUER AND BERTHA VON DER NIENBURG.

INTRODUCTION AND SUMMARY.

Does the establishment of a legal minimum wage for women do more harm than good to the women it is designed to assist? Does it lead to their displacement by men, or is the child, in spite of the pressure used to keep it out of industry, being drawn in to do the unskilled work that the adult woman had been employed to do? If any women are benefited, how many and to what extent? Are the higher wages paid to the efficient women being leveled to meet the additional expense imposed in raising the wage of the less skilled? Does the assurance of a legal minimum wage reduce woman's efficiency? Finally, is labor cost increased by such legislation?

Such are the insistent queries asked by the American public as to the value of legal enactments in insuring a living wage to normal wage-earning women. To answer these questions upon the basis of experience in America has been the object of this study.

The field in which answers were to be found in the fall of 1914, when this investigation was begun, was very limited. Only the commissions in Oregon, Washington, and Massachusetts had made wage determinations.[2] In Massachusetts the determinations made applied only to the brush industry, and like those in Washington, were of too recent date to permit of the necessary business adjustments or to allow a study of conditions in corresponding normal months before and after the determinations.[3] Utah alone among the States has a minimum fixed for all occupations in all industries by statutory law. Although the date of enactment would have made possible an investigation, women affected in this State were so few in number and so scattered as to render the study inadvisable.

---

[1] The material forming the basis of this report was collected at the joint expense of the United States Bureau of Labor Statistics and the United States Commission on Industrial Relations.

[2] See Bulletin of the United States Bureau of Labor Statistics, No. 167, for summaries and the text of American minimum-wage determinations.

[3] The Massachusetts determination became operative Aug. 15, 1914; the Washington determinations became operative at different dates from June 27, 1914, to Feb. 20, 1915.

Oregon was, therefore, the only State that could throw light on all the queries asked.[1] Yet even here, it was necessary to confine the study to the retail stores—the industry employing the largest number of women to which the determinations are applicable. When this investigation was inaugurated the determinations made by the Oregon Industrial Welfare Commission in regard to factory employees applied only to time workers, all piecework being beyond the scope of the determinations made up to that time. As the commission was contemplating orders covering piece rates, a study of the effect of the minimum wage in factories would have been of little practical value.

The Oregon commission in fixing the minimum wage of women employed in stores made one set of determinations for the city of Portland and another for all other cities, towns, or villages. Portland has a population somewhat in excess of 200,000. The next largest city, Salem, with approximately 14,000 people, presents the retail-store conditions which prevail in the other small cities in the State, depending largely on the surrounding country for their trade. The determinations in Oregon classify female employees in retail stores as girls under 18 years,[2] inexperienced adult women 18 years of age and over with experience of not more than one year in an occupation, and experienced adult women 18 years of age and over having more than one year of experience in an occupation. Any change in the character of service rendered constitutes a change in occupation, and therefore the beginning of a new apprenticeship year. All girls under 18 and inexperienced adult women in retail stores in the State of Oregon must receive a minimum weekly rate of pay of $6; all experienced adult women must receive $8.25, save in Portland, where they must be paid at the minimum rate of $9.25 per week. These awards became operative on different dates, from October 4, 1913, to February 7, 1914.[3]

To ascertain what the effect of the Oregon determinations had been, a comparison was made of records of 40 department, dry-goods, 5 and 10 cent, specialty, and neighborhood stores for the two spring months, March and April, in 1913 and the same two months in 1914[4]—periods ending five months before and beginning five months after the date on which the first minimum-wage determination went into effect and at the same time nearly one month after the date on which the last retail-store determinations took effect. The number of women under and over 18 years, with and without one year of experience in each occupation, was taken for both periods, together with each woman's rate of pay, the hours she worked, the amount received in wages, in P. M.'s[1] and commissions, and, if selling, the amount of her sales in both years. Data for men were taken for the same periods in 1913 and 1914 as to the number employed, the total earnings, and the total sales. All records were copied from store books by the Federal agents. In addition 443 women were personally visited and a record of their age and experience and their places of employment, occupations, rates of pay, earnings, and hours of work before and after the wage determinations was obtained.

---

[1] See appendixes, for law creating Oregon Industrial Welfare Commission and for wage determinations.

[2] Although the commission had the right to include boys under 18 in the determinations, they had not done so at the time of this investigation.

[3] The exact dates on which the determinations applicable to women employed in stores became effective were as follows:

Oct. 4, 1913, for girls between 16 and 18 years, a minimum wage of $1 a day.
Nov. 23, 1913, for experienced adult women in Portland, a minimum rate of $9.25 a week.
Feb. 7, 1914, for experienced adult women in the State outside of Portland, a minimum rate of $8.25 a week
Feb. 7, 1914, for inexperienced adult women, a minimum rate of $6 a week.

[4] Conditions peculiar to one firm's business rendered these months not comparable in the two years; the records for September in 1913 and 1914 were therefore substituted.

Although this study of the effect of minimum-wage determinations was as comprehensive as the situation would permit, the numbers of women affected in the State of Oregon were too small and the time for adjustments both for the business interests concerned and the State authorities was too short to allow the results of the study to do more than show tendencies. It was deemed advisable, however, to make this study in Oregon at this time in order that the facts attending the earliest experience under minimum-wage legislation might be available for consideration in framing such enactments elsewhere; and also that this experience might be recorded for comparison with later results shown by future studies. This study can not be assumed to show the ultimate effects even in Oregon. Such legislation must live through various fluctuations in business conditions before some of its tendencies can be sharply distinguished from changes due to other influences.

Regardless of minimum-wage determinations, there are constant changes in business organization from year to year which have a material bearing upon the opportunities and conditions of employment. New departments are added from time to time, successful departments are expanded, and other departments which have failed to secure the public recognition expected are curtailed and sometimes eliminated. All such rearrangements involve additions to, transfers, or reductions in the labor force. These adjustments are of common occurrence. Any study from which such normal changes were eliminated in the effort to single out the effects of the minimum-wage legislation would defeat its own purpose.

The general business depression of 1914 was felt by Portland mercantile establishments, and injected into the problem of determining the effect of the minimum wage another factor of material influence. A depression in business automatically reduces the numbers employed.

---

[1] P. M.'s are premiums given for selling slow-moving stock.

It is therefore important to guard against confusing the effects of depressed business with the effects of minimum-wage determinations. The problem in Oregon was further complicated because a reduction of legal working hours and a 6 p. m. closing regulation took effect at the same time as the wage orders.

Other difficulties were encountered in the progress of the investigation. Defective, or entire lack of, records limited the study to approximately three-fourths of the stores of the classes covered. Even among these establishments difficulty was encountered in ascertaining the age and experience of all the women employees. This was a serious obstacle in view of the fact that the Oregon Industrial Welfare Commission, as stated, classified women employees in retail stores by age and experience, yet neither the law nor any order of the commission requires the keeping of such records. Manifestly an effective enforcement can not be achieved until adequate records are kept.

Notwithstanding all the difficulties and complications, a number of conclusions can be drawn concerning changes in conditions of labor after the minimum-wage determinations.

Certain readjustments occurred in Portland stores such as might be expected even in a normal business year. The establishment of three new departments and the elimination of two other departments requiring different grades of labor brought about the employment of some women and the dismissal of others. A policy of charging for alteration of garments, inaugurated in 1914 by the Portland Retail Merchants' Association, decreased the demand for alterations, thereby necessitating a reduction in the number of women employed in the workroom, a department paying relatively high wages.

The effect of the country-wide depression manifested itself in a marked reduction in sales in many stores. This operated to decrease the labor force, both male and female.

Throughout this discussion the influence of these factors must be borne in mind as they account very largely for the decrease in the number of women employees. The decrease in total numbers bears little or no relation necessarily to the minimum-wage determinations, but the dismissal of particular women rather than others, because they had completed their apprenticeship period and must therefore be paid a higher wage if retained, can be considered as due to the determinations.

Girls under 18 years of age have increased, especially in the errand, bundle-wrapper, and cashier occupations, but not in the more skilled work of selling, sewing, or of the office. These first-named occupations tend to become the sphere for minors to the exclusion of adult women with or without experience, a result, in all probability, of the minimum-wage determinations.

The wage determinations have not put men in positions vacated by women. The causes operating to decrease the number of women also operated to decrease the number of men, though to a less degree, as the nonselling male force is not as adjustable as the nonselling female force.

The rates of pay for women as a whole have increased. Wherever the wage rates of old employees have been changed since the minimum-wage rulings, the employees were benefited. Some women, upon reinstatement after an absence, were compelled to accept the rate to which they were legally entitled, although it was below that received during their earlier service. The average rates of pay of girls under 18 and of experienced adults have increased; that of inexperienced adults decreased very slightly. While formerly 26 per cent of the girls under 18 received a rate of less than $6 a week, after the determinations less than 1 per cent were paid below this rate. More girls under 18 years received over $6 a week after than before the minimum-wage determinations. Among the experienced women not only the proportion getting $9.25 (the legal minimum) but also the proportion getting over $9.25 has increased. The proportion of the force receiving over $12 has also increased, although the actual number has decreased. Some experienced women were receiving rates below the minimum to which the determinations entitled them.

Employment was more regular in 1914 than in 1913. This was due in part to the fact that under depressed business conditions fewer new employees were taken on for short periods. The disparity between rates and earnings was therefore less in 1914, but sufficiently large in that year to call attention sharply to the importance of giving unemployment consideration in making minimum-wage determinations. The Oregon commission took no cognizance of unemployment, confining its first attempts to determining the minimum amount below which a self-supporting woman could not subsist in health and comfort, and to fixing this amount as the minimum rate of pay. Whether the conditions in retail-store business in Oregon would permit a steadiness of employment that would insure average earnings approximating the minimum rates to any woman able and willing to work steadily, is a question which would have involved an extensive and expensive investigation to answer satisfactorily. It is important, however, to know the extent of unemployment and also the extent to which the difference between actual and full-time hours is due to business conditions, to voluntary absences from duty, to illness, to family demands, or to other causes.

A comparison of sales made by women raised to, receiving, or who should have received the minimum with those of women receiving above the minimum does not reveal differences that would indicate a decrease in the efficiency of those affected by the wage determinations.

The numbers for whom comparable data on this subject could be secured were too limited, however, to warrant conclusions.

All the changes arising from decreased business, reorganization of departments, and increased rates of pay resulted in an increase in the female labor cost and also in the total labor cost of 3 mills per dollar of sales. This increased cost was not distributed equally among stores or among departments in the same store. The changes in female-labor cost varied from an 8-mill increase per dollar of sales in Portland neighborhood stores to a 1.2-cent decrease in Salem stores.

ESTABLISHMENTS COVERED AND NUMBERS EMPLOYED IN 1914.

For reasons already explained, this study of the effect of minimum-wage legislation in Oregon was confined to the department, dry-goods, and 5 and 10 cent stores, the cloak and suit and waist specialty houses,[1] and the small dry-goods stores situated in neighborhood districts. A complete survey of stores of these classes was not possible, because all firms did not have the information desired.[2] Records for corresponding periods before and after the minimum-wage determinations were obtained from more than three-fourths of the establishments of these classes in business both in 1913 and 1914.

The number of establishments covered in the investigation and the number of women and men employed during the period studied in 1914 are shown in Table 1 below, the figures in the case of Portland being shown separately for each class of store included.

TABLE 1.—ESTABLISHMENTS COVERED IN THE INVESTIGATION AND WOMEN AND MEN EMPLOYED DURING PERIOD STUDIED IN 1914.

[This table does not include extra male or female help whose identity from week to week could not be traced, such female help being equivalent to 3 women working full time; nor does it include 20 saleswomen whose regular employment began with the opening of a new department on the last day of the period covered in the investigation.]

Type of store.	Number of establishments covered.	Number of persons employed during period studied in 1914.	
		Women and girls.	Men.
PORTLAND.			
Department, dry-goods, and 5 and 10 cent stores	6	1,345	802
Specialty stores	11	181	49
Neighborhood stores	16	20	17
Total	33	1,546	868
SALEM.			
Dry-goods, specialty, and 5 and 10 cent stores	7	96	34
Grand total	40	1,642	902

---

[1] See note [1], p. 57.

[2] One firm, Olds, Wortman & King, a Portland department store, refused the Federal agents access to their records. They offered to furnish a summary statement, but the Bureau did not regard this as comparable with material obtained direct from other firms' books.

NUMBERS EMPLOYED BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

CHANGES IN NUMBERS EMPLOYED COMPARED WITH AMOUNT OF SALES.

During the months of March and April, 1913,[1] there were 1,919 women and girls employed in the 24 Portland and 7 Salem stores for which the amount of sales could be obtained, the other 9 stores employing but 11 women. Many of these women worked but a fraction of a month in this period.[2] The irregularity of employment which occurs in a two-month period renders the actual numbers employed an inexact basis for comparison of the work given to women in the two years. By dividing the total hours which these women worked in the period studied in each year by the establishment hours for the same period in each year, the number of full-time workers possible in each period is ascertained. Table 2 shows that the 1,919 women whose names appeared on the pay rolls in the 1913 period were equivalent to 1,498 full-time women, and that the 1,634 women employed in the 1914 period were equivalent to 1,332 full-time workers. The percentage of difference between these full-time workers measures the real decrease in the number of women workers in 1914. The decrease in the numbers of full-time women since the wage rulings was approximately 11 per cent, as compared with an 8 per cent decrease in total sales.

TABLE 2.—ACTUAL NUMBER OF WOMEN AND GIRLS EMPLOYED AND THEIR EQUIVALENT IN FULL-TIME WORKERS, AND TOTAL AVERAGE WEEKLY SALES BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, IN 24 PORTLAND AND 7 SALEM RETAIL STORES.

Type of store.	Actual number of women and girls employed.			Equivalent number of full-time workers.			Per cent of increase (+) or decrease (−) in actual number of men employed.	Total average weekly sales.		
	Before determinations.	After determinations.	Per cent of increase (+) or decrease (−).	Before determinations.	After determinations.	Per cent of increase (+) or decrease (−).		Before determinations.	After determinations.	Per cent of increase (+) or decrease (−).
PORTLAND.										
Department, dry-goods, 5 and 10 cent stores...	1,632	[3] 1,345	−17.6	1,269	1,100	−13.3	− 8.8	$175,338.83	$158,356.12	− 9.7
Specialty stores........	167	181	+ 8.4	127	139	+ 9.4	+16.7	19,302.85	20,657.92	+ 7.0
Neighborhood stores...	[3] 23	[3] 12	−47.8	22	12	−45.5	−10.5	4,821.42	3,228.13	−33.1
Total............	[3] 1,822	[3] 1,538	−15.6	1,418	1,251	−11.8	− 7.7	199,463.10	182,242.17	− 8.6
SALEM.										
Dry-goods, specialty, and 5 and 10 cent stores............	97	96	− 1.0	80	81	+ 1.2	None.	7,416.53	8,079.70	+ 8.9
Grand total......	[3] 1,919	[3] 1,634	−14.9	1,498	1,332	−11.1	− 7.4	206,879.63	190,321.87	− 8.0

[1] Conditions peculiar to one firm's business rendered these months not comparable in the two years; the records for September in 1913 and 1914 were therefore substituted.

[2] No "extras" or "contingents" are included in this discussion, which has to do with regular employees only.

[3] Nine neighborhood stores, employing 11 women and 6 men in 1913 and 8 women and 4 men in 1914, did not report sales, and have therefore not been included in the table; nor does it include 20 saleswomen whose regular employment began with the opening of a new department on the last day of the period covered in the investigation.

In the department, dry-goods, and 5 and 10 cent stores there was approximately a 13 per cent loss of employment among women in the 1914 as compared with the 1913 period; the total sales decreased 9.7 per cent. A detailed study of occupations, however, shows that the possible number of full-time saleswomen decreased only 9 per cent, which fairly corresponds with the decrease in sales. The excessive losses occurred in the workrooms, among the bundle wrappers, and the miscellaneous help. These heavy decreases are attributed to several causes not directly associated by employers with the minimum-wage legislation. A policy of charging for alterations, inaugurated by the Portland Retail Merchants' Association in 1914, reduced the demand for this sort of work to such an extent that the alteration force was cut down 48 per cent, resulting in a reduction in the total workroom force of one-third. In certain stores the public restaurants and soda fountains, with the occupations incident to those departments, were abolished. Unnecessary messenger service was done away with in 1914. Only this last reduction of numbers may be associated even indirectly with the wage determinations. Whether attention was called to the unnecessary service by the wage determinations or by the general need for cutting down expenses because of business depression can not be stated.

In the neighborhood stores the 33 per cent decrease in sales (in the seven stores reporting sales) led to a discharge of the women employees wherever temporary services of the daughter or wife of the owner were available and sufficient. In only one of the seven stores dismissing women did the owner give as the reason for the dismissal his belief that they were not worth the wage required by law.

In the Portland specialty stores, where business was better in 1914 than 1913, the number of full-time women and girls increased. Salem retail stores, which show a 9 per cent rise in sales, employed almost the same number in both years. Where business improved, therefore, no decrease in the number of women employed occurred. The detailed study shows, however, that a smaller per cent of women were directly affected by the minimum-wage determinations in these stores than in the large department and dry-goods stores.

Little, if any, of the loss of employment among women as a group can be related to the minimum-wage determinations. Decreased business, curtailing of alteration help and messenger service, and elimination of departments operated largely in producing the 11 per cent decrease in the numbers of full-time women employed.

The force of 974 men employed in the 1913 period in the 40 stores studied decreased 7.4 per cent in the 1914 period, a change in close correspondence with the reduction in business. In Portland stores where business decreased the actual number of men decreased less rapidly than the actual number of women. In Portland stores where an increase in business occurred there was a greater increase among men than among women. Obviously no general displacement of women by men can have occurred. Furthermore, a detailed study of occupations disclosed little attempt to fill with men the positions left vacant by women. A few such adjustments in the office have been made, but they were made to permit the completion of work not always finished at 6 p. m.,[1] the latest hour that women could be employed in the store.

CHANGES IN NUMBERS OF GIRLS, INEXPERIENCED WOMEN, AND EXPERIENCED WOMEN EMPLOYED.

Has the decrease in numbers employed necessitated by business depression and normal readjustment been borne equally by women of differing age and experience? The determinations of the Oregon Industrial Welfare Commission divide women wage earners into those under 18 years, those 18 years or over with not more than one year's experience in an occupation, and those 18 years or over with more than one year's experience in an occupation. For the girl under 18 and the inexperienced adult woman the minimum wage is $6. The adult woman having more than one year of experience must receive $9.25 in Portland and $8.25 in other parts of the State. Table 3, which follows, shows the actual number of women and girls employed and their equivalent in full-time workers, classified by age and experience, before and after the minimum-wage determinations, with the per cent of increase or decrease after the determinations.

---

[1] The question as to whether the 6 p. m. closing order, made at the same time as the minimum-wage orders, applies to all women employed in stores or only to women engaged in selling, was under consideration by the State's attorney at the time of this investigation.

TABLE 3.—ACTUAL NUMBER OF WOMEN AND GIRLS EMPLOYED AND THEIR EQUIVA NUMBER OF MEN EMPLOYED BEFORE AND AFTER MINIMUM-WAGE

Type of store.	Total employees.[1]			Total men.			Total women.		
	Before determinations.	After determinations.	Per cent of increase (+) or decrease (−).	Before determinations.	After determinations.	Per cent of increase (+) or decrease (−).	Before determinations.	After determinations.	Per cent of increase (+) or decrease (−).
PORTLAND.									
Department, dry-goods, and 5 and 10 cent stores:									
Actual number	2,511	2,147	−14.5	879	802	− 8.8	1,632	1,345	−17.6
Equivalent full-time workers							1,269	1,100	−13.3
Specialty stores:									
Actual number	209	230	+10.0	42	49	+16.7	167	181	+ 8.4
Equivalent full-time workers							127	139	+ 9.4
Neighborhood stores:									
Actual number	53	37	−30.2	19	17	−10.5	34	20	−41.2
Equivalent full-time workers							33	20	−39.4
Total:									
Actual number	2,773	2,414	−12.9	940	868	− 7.7	1,833	1,546	−15.7
Equivalent full-time workers							1,429	1,259	−11.9
SALEM.									
Dry-goods, specialty, and 5 and 10 cent stores:									
Actual number	131	130	− .8	34	34		97	96	− 1.0
Equivalent full-time workers							80	81	+ 1.2
Grand total:									
Actual number	2,904	2,544	−12.4	974	902	− 7.4	1,930	1,642	−14.9
Equivalent full-time workers							1,509	1,340	−11.2

---

[1] Not including extra male help in 1914 or female help whose identity from week to week could not be traced in 1913 and 1914, such female help being equal to 3 women working full time; nor does it include 20 saleswomen in 1914 whose regular employment began with the opening of a new department on the last day of the period covered in the investigation.

[2] While age and experience records could not be secured for these women—not one of whom was on the rolls for both years—information obtained from their fellow workers, their rates of pay, and the statements of employers that they had dismissed adult experienced women in certain unskilled occupations rather than pay the required $9.25, clearly indicates that in 1913 these women were adults and largely adult experienced women. The same sources of information clearly indicate that the girls for whom records could not be found in 1914 were minors, adult inexperienced, and adult experienced. See text discussion, pp. 16 and 40.

LENT IN FULL-TIME WORKERS, CLASSIFIED BY AGE AND EXPERIENCE, AND ACTUAL DETERMINATIONS IN 33 PORTLAND AND 7 SALEM RETAIL STORES.

Classification of women employees.													
Girls under 18.			Adult inexperienced.			Adult experienced.			Adults, experience not definitely known.		Age and experience not definitely known.[2]	
Before determinations.	After determinations.	Per cent of increase (+) or decrease (−).	Before determinations.	After determinations.	Per cent of increase (+) or decrease (−).	Before determinations.	After determinations.	Per cent of increase (+) or decrease (−).	Before determinations.	After determinations.	Before determinations.	After determinations.
[3] 15	[3] 27	[3] +80.0	[3] 32	[3] 10	[3] −68.7	[3] 105	[3] 116	[3] +10.5	....	....	....	....
[4] 120	[4] 130	[4] + 8.3	[4] 145	[4] 129	[4] −11.0	[4] 942	[4] 825	[4] −12.4	121	49	152	59
[3] 14	[3] 23	[3] +64.3	[3] 25	[3] 8	[3] −68.0	[3] 83	[3] 99	[3] +19.3	....	....	....	....
[4] 94	[4] 102	[4] + 8.5	[4] 107	[4] 107	....	[4] 789	[4] 691	[4] −12.4	78	32	79	38
....	3	....	2	4	....	165	174	+ 5.5	....	....	....	....
....	2	....	2	3	....	125	134	+ 7.2	....	....	....	....
3	....	....	6	5	....	25	15	−40.0	....	....	....	....
3	....	....	5	5	....	25	15	−40.0	....	....	....	....
138	160	+15.9	185	148	−20.0	1,237	1,130	− 8.7	121	49	152	59
111	127	+14.4	139	123	−11.5	1,022	939	− 8.1	78	32	79	38
7	4	....	8	14	....	82	78	− 4.9	....	....	....	....
6	3	....	7	11	....	67	67	....	....	....	....	....
145	164	+13.1	193	162	−16.1	1,319	1,208	− 8.4	121	49	152	59
117	130	+11.1	146	134	− 8.2	1,089	1,006	− 7.6	78	32	79	38

[3] Figures for 3 stores whose records were complete.
[4] Figures for 3 stores whose records were incomplete.

The above table shows that among the group whose age and experience were definitely known the number of full-time inexperienced adult women, totaling 146 before the minimum-wage determinations, was reduced 8.2 per cent; the number of full-time experienced adult women, by far the largest number employed in stores, decreased 7.6 per cent. Girls under 18, most of whom were employed in the department, dry-goods, and 5 and 10 cent stores, show an increase of 11.1 per cent in full-time numbers. Similar changes occur in the actual numbers of workers in each group, although the per cent of decrease in the actual number of inexperienced adults was almost double that in the full-time number.

The fact that definite age and experience records were not available for certain numbers does not militate against the significance of the figures shown in Table 3 as much as would at first appear. While statistical records were not available, the status of these women is indicated by information secured from their fellow workers and from their employers and by their rates of pay. A number of these women were known by their fellow workers to be far above the 18-year limit; in the light of the employers' statements that the rates known to have been paid were never paid to minors, the age group of a considerable number of others was established; finally the policy pursued by the particular firms where these women were employed, of eliminating all adult women from the unskilled occupations and putting in their places girls under 18 concerning whom the wage determinations raised no question of experience, indicates clearly that the women whose age and experience were not definitely known in 1913 were largely adults and adults with experience. The influences bringing about the elimination of the adult before the minimum-wage determinations went into effect would operate to increase the number of girls under 18 after such determinations went into effect.

The increase in the number of girls under 18 can be traced directly to the wage determinations. There are certain occupations which, department-store managers contend, require little skill or experience and do not warrant a wage of $9.25 per week, the legal rate established for experienced women by the determinations. The work, it is said, can be done by minors as satisfactorily as by adults. A number of adult women who were experienced in these errand-girl occupations when the minimum-wage determinations took effect were transferred to other occupations to begin an apprenticeship anew; others who were not suited to or for whom there was no opening in more skilled occupations, such as selling, sewing, or clerical work, were dismissed.[1] Formerly no attention was given to the particular age of the women entering these positions. A girl of 16 entering now as a bundle wrapper can continue in the occupation for two years before she is entitled to the minimum wage for experienced women; another girl entering at 18 years or more must receive the minimum in one year, and therefore becomes a problem for her employer a year sooner than her younger sister. Naturally the minors are given the preference in these relatively unskilled occupations. In the skilled occupations minors have decreased.

---

[1] See discussion of changes in occupation, pp. 70 to 72, and changes in place of employment, p. 70.

RATES OF PAY BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

ALL FEMALE EMPLOYEES.

The minimum-wage determinations aim directly at the rates of pay; here, then, their effect ought to be readily measured. As elsewhere stated, no woman or girl can now be employed in Oregon at a rate less than $6 per week. No woman 18 years of age or over who has been employed more than one year in a store occupation can be employed for less than $9.25 per week in Portland or for less than $8.25 per week in other parts of the State in the same occupation.

In the period covered in 1913 approximately 50 per cent of the women employed in Portland and Salem stores received a rate of $9.25 or more. The minimum-wage determinations, therefore, legally applied to not more than half of the female labor force in retail stores in these cities.

Table 4, which follows, permits a comparison of the rates before and after the minimum-wage determinations, with special reference to the rates fixed thereby. The table relates to inexperienced and experienced adults as well as to those under 18.

TABLE 4.—NUMBER AND PER CENT OF WOMEN AND GIRLS WHOSE WEEKLY RATES OF PAY BEFORE AND AFTER THE MINIMUM-WAGE DETERMINATIONS WERE UNDER, EQUAL TO, OR OVER THE MINIMUM RATES FIXED, AS SHOWN BY THE PAY ROLLS OF 33 PORTLAND AND 7 SALEM RETAIL STORES.

[For girls under 18 and inexperienced adult women of 18 and over the minimum wage is $6; for adult women with more than 1 year of experience it is $9.25 in Portland and $8.25 in other parts of the State.]

Type of store.	Women whose weekly rates of pay were within each classified amount.										Total number.	Average rate of pay per week.
	Under $6		$6		Over $6 and under $9.23[1]		$9.23[1] or $9.25		Over $9.25			
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		
PORTLAND.												
Department, dry-goods, and 5 and 10 cent stores:												
Before determinations..	142	8.7	250	15.3	496	30.4	147	9.0	597	36.6	1,632	$9.69
After determinations...	3	.2	270	19.8	190	13.9	338	24.8	564	41.3	[2] 1,365	10.15
Specialty stores:												
Before determinations..	......	......	1	.6	[3] 21	12.6	5	3.0	140	83.8	167	12.68
After determinations...	......	......	4	2.2	[3] 20	11.0	18	9.9	139	76.8	181	12.11
Neighborhood stores:												
Before determinations..	1	2.9	2	5.9	[4] 16	47.1	3	8.8	12	35.3	34	9.54
After determinations...	1	5.0	......	......	[4] 5	25.0	7	35.0	7	35.0	20	10.28
Total:												
Before determinations............	143	7.8	253	13.8	533	29.1	155	8.5	749	40.9	1,833	9.96
After determinations............	4	.3	274	17.5	215	13.7	363	23.2	710	45.3	[2] 1,566	10.38
SALEM.												
Dry-goods, specialty, and 5 and 10 cent stores:												
Before determinations..	8	8.2	1	1.0	[5] 47	48.5	7	7.2	34	35.1	97	9.23
After determinations...	......	......	11	11.5	40	41.7	10	10.4	35	36.5	96	9.47
Grand total:												
Before determinations............	151	7.8	254	13.2	580	30.1	162	8.4	783	40.6	1,930	9.92
After determinations............	4	.2	285	17.1	255	15.3	373	22.4	745	44.8	[2] 1,662	10.33

[1] Firms fixing wages on a monthly basis pay a minimum of $40 per month, which is equivalent to $9.23 per working week; this rate was accepted by the commission as complying with the determination of $9.25 a week.

[2] Including 20 women whose regular employment began with the opening of a new department on the last day of the period covered in the investigation.

[3] Including 8 women who received in addition to the weekly rate a 2 per cent commission on all sales.

[4] Including 2 women who received in addition to the weekly rate a 1 per cent commission on all sales.

[5] There were 19 women before and 6 women after the minimum-wage determinations receiving over $6 but under $8.25.

Any rate lower than $6 a week was practically abolished in the 40 stores after these determinations went into effect. The per cent receiving $6 was slightly increased and the per cent receiving $9.25[1] (the legal minimum for experienced adults in Portland) was increased from 8.4 per cent to 22.4 per cent. The per cent of the force receiving over $9.25 per week was increased from 40.6 per cent to 44.8 per cent. The average rate of pay for all women employed in the 40 stores increased 41 cents per week in 1914, or from $9.92 to $10.33 per week. As a whole, therefore, the rates of the women employed in these 40 stores have been materially increased since the wage rulings. The only decrease shown in any group of establishments occurred in the specialty stores, the stores paying rates that were out of the reach of the law save in a few instances. This decrease of the average rate from $12.68 to $12.11 per week was not caused by a general reduction of rates of pay for old employees; rather it was due to a taking on of additional help at the legal rates of $6 and $9.25, rates slightly lower than the rates formerly paid to women entering the stores for the first time.

---

[1] A monthly rate of $40, equivalent to $9.23 a week, was regarded by the commission as a compliance with the determinations.

GIRLS UNDER 18 YEARS OF AGE.

Table 5 shows for girls under 18 the number and per cent receiving certain weekly rates of pay before and after the minimum-wage determinations, just as were shown in Table 4 for all classes of women.

TABLE 5.—NUMBER AND PER CENT OF GIRLS UNDER 18 WHOSE WEEKLY RATES OF PAY BEFORE AND AFTER THE MINIMUM-WAGE DETERMINATIONS WERE UNDER, EQUAL TO, OR OVER THE MINIMUM RATES FIXED, AS SHOWN BY THE PAY ROLLS OF 33 PORTLAND AND 7 SALEM RETAIL STORES.

[For girls under 18 and inexperienced adult women of 18 and over the minimum wage is $6; for adult women with more than 1 year of experience it is $9.25 in Portland and $8.25 in other parts of the State.]

Type of store.	Women whose weekly rates of pay were within each classified amount.								Total number.	Average rate of pay per week.
	Under $6		$6		Over $6 and under $9.23		$9.23 or $9.25			
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		
PORTLAND.										
Department, dry-goods, and 5 and 10 cent stores:										
Before determinations	33	24.44	77	57.04	25	18.52	......	......	135	$5.92
After determinations	1	.64	124	78.98	29	18.47	3	1.91	157	6.23
Specialty stores:										
Before determinations	......	......	......	......	......	......	......	......	......	......
After determinations	......	......	3	100.00	......	......	......	......	3	6.00
Neighborhood stores:										
Before determinations	......	......	......	......	3	100.00	......	......	3	8.31
After determinations	......	......	......	......	......	......	......	......	......	......
Total:										
Before determinations	33	23.91	77	55.80	28	20.29	......	......	138	5.98
After determinations	1	.62	127	79.38	29	18.13	3	1.87	160	6.23
SALEM.										
Dry-goods, specialty, and 5 and 10 cent stores:										
Before determinations	5	71.43	......	......	2	28.57	......	......	7	5.07
After determinations	......	......	3	75.00	1	25.00	......	......	4	6.58
Grand total:										
Before determinations	38	26.21	77	53.10	30	20.69	......	......	145	5.93
After determinations	1	.61	130	79.27	30	18.29	3	1.83	164	6.24

Prior to the rate determinations 26.2 per cent of the girls under 18 years of age received less than $6, 53.1 per cent received $6, and 20.7 per cent received more than $6. In the 1914 period but one got less than the legal minimum. Almost 80 per cent were getting exactly $6, while the proportion receiving more than $6 remained the same, namely, 20 per cent. The fact that 20 per cent were still receiving more than $6, although in a group for which the awards stipulated only that they should be paid not less than $6, shows that employers did not reduce wages of minors to the minimum permitted by the wage determinations, but continued to pay wages as before on the basis of the value of the services rendered. The rate for the 145 minors employed in all stores prior to the wage determinations averaged $5.93, or 7 cents less than the legal minimum rate afterwards fixed by the industrial welfare commission. The average rate of pay for these girls under 18 years increased 31 cents per week after the wage determinations.

INEXPERIENCED ADULT WOMEN 18 YEARS OF AGE AND OVER.

A lower rate was fixed for inexperienced adult women than was considered a living wage for independent women because the earning power of an inexperienced woman, regardless of her age, was not considered equal to the rate fixed for experienced women. Pending further study by the industrial welfare commission the employer was permitted to pay her the minimum paid minors until she had been in an occupation one year. Then, if retained in the same occupation, she must be paid not less than the minimum rate for experienced adult women—$9.25 in Portland and $8.25 elsewhere throughout the State.

Table 6 shows the number and per cent of inexperienced adult women receiving certain weekly rates of pay before and after the minimum-wage determinations, according to the form used in Tables 4 and 5, for all women and for girls under 18 years of age.

TABLE 6.—NUMBER AND PER CENT OF INEXPERIENCED ADULT WOMEN WHOSE WEEKLY RATES OF PAY BEFORE AND AFTER THE MINIMUM-WAGE DETERMINATIONS WERE UNDER, EQUAL TO, OR OVER THE MINIMUM RATES FIXED, AS SHOWN BY THE PAY ROLLS OF 33 PORTLAND AND 7 SALEM RETAIL STORES.

[For girls under 18 and inexperienced adult women of 18 and over the minimum wage is $6; for adult women with more than 1 year of experience it is $9.25 in Portland and $8.25 in other parts of the State.]

Type of store.	Women whose weekly rates of pay were within each classified amount.										Total number.	Average rate of pay per week.
	Under $6		$6		Over $6 and under $9.23		$9.23 or $9.25		Over $9.25			
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		
PORTLAND.												
Department, dry-goods, and 5 and 10 cent stores:												
Before determinations	8	4.52	66	37.29	99	55.94	3	1.69	1	0.56	177	$6.85
After determinations	......	......	73	51.41	55	38.73	12	8.45	2	1.41	[1] 142	6.81
Specialty stores:												
Before determinations	......	......	1	50.00	1	50.00	......	......	......	......	2	6.50
After determinations	......	......	1	25.00	3	75.00	......	......	......	......	4	7.25
Neighborhood stores:												
Before determinations	......	......	2	33.33	3	50.00	1	16.67	......	......	6	7.78
After determinations	1	20.00	......	......	1	20.00	2	40.00	1	20.00	5	8.09
Total:												
Before determinations	8	4.32	69	37.30	103	55.68	4	2.16	1	.54	185	6.88
After determinations	1	.66	74	49.01	59	39.07	14	9.27	3	1.99	[1] 151	6.86
SALEM.												
Dry-goods, specialty, and 5 and 10 cent stores:												
Before determinations	1	12.50	1	12.50	6	75.00	......	......	......	......	8	6.81
After determinations	......	......	8	57.14	6	42.86	......	......	......	......	14	6.66
Grand total:												
Before determinations	9	4.66	70	36.27	109	56.48	4	2.07	1	.52	193	6.88
After determinations	1	.61	82	49.70	65	39.39	14	8.48	3	1.82	[1] 165	6.84

[1] Including 3 women whose regular employment began with the opening of a new department on the last day of the period covered in the investigation.

The $6 ruling had very little direct effect on the rate of pay of inexperienced adult women, as only 9 women whose age and experience were known to place them in this group were getting less than $6 in the 1913 period. The average rate of pay per week for these women was decreased by 4 cents. The old employees were not reduced, but the place of a $28 or a $30 a month girl was filled by a $26 girl. Fifty-nine per cent of these women received more than $6 before the minimum-wage determinations; only 50 per cent received more than that after the determinations. The proportion receiving $9.25 per week or more was increased, however.

It is evident that the minimum-wage determinations have been followed by a reduction in the rate for some adult inexperienced women. This may have been due to the unfavorable business conditions in 1914; it would not follow that the same reductions would have occurred in a good business year. The fact remains, however, whether due to the depression in business or not, that the adult inexperienced as a group have suffered a reduction in rates.

EXPERIENCED ADULT WOMEN 18 YEARS OF AGE AND OVER.

The number and per cent of experienced adult women receiving certain weekly rates of pay before and after the minimum-wage determinations are shown in Table 7, according to the form used for the other classes of women in Tables 4, 5, and 6.

TABLE 7.—NUMBER AND PER CENT OF EXPERIENCED ADULT WOMEN WHOSE RATES OF PAY BEFORE AND AFTER THE MINIMUM-WAGE DETERMINATIONS WERE UNDER, EQUAL TO, OR OVER THE MINIMUM RATES FIXED, AS SHOWN BY THE PAY ROLLS OF 33 PORTLAND AND 7 SALEM RETAIL STORES.

[For girls under 18 and inexperienced adult women of 18 and over the minimum wage is $6; for adult women with more than 1 year of experience it is $9.25 in Portland and $8.25 in other parts of the State.]

Type of store.	Women whose weekly rates of pay were within each classified amount.										Total number.	Average rate of pay per week.
	Under $6		$6		Over $6 and under $9.23		$9.23 or $9.25		Over $9.25			
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		
PORTLAND.												
Department, dry-goods, and 5 and 10 cent stores:												
Before determinations	7	0.67	24	2.29	282	26.94	140	13.37	594	56.73	1,047	$11.62
After determinations			20	2.09	61	6.37	319	33.30	558	58.24	[1] 958	11.94
Specialty stores:												
Before determinations					[2] 20	12.12	5	3.03	140	84.85	165	12.74
After determinations					[2] 17	9.77	18	10.34	139	79.89	174	12.20
Neighborhood stores:												
Before determinations	1	4.00			[3] 10	40.00	2	8.00	12	48.00	25	10.12
After determinations					[3] 4	26.67	5	33.33	6	40.00	15	11.01
Total:												
Before determinations	8	.65	24	1.94	312	25.22	147	11.88	746	60.31	1,237	11.74
After determinations			20	1.74	82	7.15	342	29.82	703	61.29	[1] 1,147	11.97
SALEM.												
Dry-goods, specialty, and 5 and 10 cent stores:												
Before determinations	2	2.44			[4] 39	47.56	7	8.54	34	41.46	82	9.82
After determinations					[4] 33	42.31	10	12.82	35	44.87	78	10.12
Grand total:												
Before determinations	10	.76	24	1.82	351	26.61	154	11.67	780	59.14	1,319	11.62
After determinations			20	1.63	115	9.39	352	28.74	738	60.24	[1] 1,226	11.86

[1] Including 17 women whose regular employment began with the opening of a new department on the last day of the period covered in the investigation.

[2] Including 8 women who received in addition to the weekly rate a 2 per cent commission on all sales.

[3] Including 2 women who received in addition to the weekly rate a 1 per cent commission on all sales.

[4] There were 27 women before and 26 women after the minimum-wage determinations receiving more than $8.25.

About 28 per cent of the experienced adult women employed in Portland stores received less than $9.25 per week before the minimum-wage determinations; 60 per cent received more than that amount.

After the rulings had gone into effect there were 102, or 9 per cent of the total number, who were still receiving less than the legal minimum.[1] The numbers receiving $9.25 per week had increased from 12 per cent to about 30 per cent of the total number, while the per cent getting more than $9.25 remained substantially the same. The average rate of pay for experienced adult women in Portland was increased 23 cents per week, or from $11.74 to $11.97.

In Salem only a few experienced adult women (14) were affected by the State-wide minimum of $8.25. None was found at just that rate. In the 1914 period only 7 were found receiving a rate as low as the legal minimum, $8.25. A larger per cent than in 1913 was reported at $9.25 and a larger per cent at rates higher than $9.25. The average rate reached $10.12 in April, 1914, an increase of 30 cents over 1913.

Notwithstanding the 102 obvious violations in Portland and the decrease in rates of pay in the Portland specialty stores, the wage rates for all experienced adult women in the two cities increased from $11.62 to $11.85. In spite of this increase in average rate and the increase of a little over one point in the per cent of experienced women receiving over $9.25 per week, the number of women receiving $12 and over decreased—a decrease, however, not out of proportion to the decrease in the whole force and due largely to the readjustments heretofore described in the alteration department (p. 12).

On the whole, women entering retail stores no longer have to begin at a $4 or $5 wage. Regardless of their age and experience they now begin their industrial career with at least a $6 rate. That this has meant a much better start for minors is apparent from these tables; that more adult women who can not lay claim to a year of experience in the occupation they enter have had to begin at $6 than formerly is also true. At the same time the per cent of inexperienced adults getting $9.25 or over have increased. Many women employees of experience received as much as $9.25 per week for the first time since their employment in the stores as a result of the minimum-wage determinations. The large per cent who had been receiving more than the legal minimum did not have their wages decreased, although for reasons closely connected with business readjustments the actual number of women getting more than $12 has decreased. Whether such rulings will make advancement in wages above $9.25 less rapid than formerly can not be said at this time. Undoubtedly the rates of pay of women as a whole have been increased.

---

[1] Owing to the fact that the constitutionality of the minimum-wage law was under consideration by the State supreme court, some merchants were slow in complying with the law. There were evidences that the number of violations were decreasing. The State commissioner of labor statistics and inspector of factories and workshops is responsible for the enforcement of these decisions. A fine or imprisonment, or both, can be imposed for violations and the girl discriminated against may collect all back wages due her. No prosecutions against retail store merchants for violations of the minimum-wage determination were recorded by this bureau in its biennial report for the period ending Sept. 30, 1914.

AVERAGE WEEKLY EARNINGS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

More important to the wage-earning woman than her rate of pay is the amount of money she actually earns. Her rate may be high and yet if her employment is not steady, if she is asked to lay off one day a week, or if she is frequently ill, her earnings may fall below the wage determined by the commission to be the minimum required for healthful living. No attempt was made in this study to determine the causes of absences.[1] How many hours she worked and how much money she received for her services in two normal months before and after the minimum-wage determinations were among the more important objects of this study.

The average weekly earnings and hours of labor before and after the minimum-wage determinations, with per cent of increase or decrease after the determinations, are shown in Table 8. The average weekly earnings from commissions and P. M.'s are separately shown.

TABLE 8.—AVERAGE WEEKLY EARNINGS AND HOURS OF LABOR OF WOMEN AND GIRLS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, WITH PER CENT OF INCREASE OR DECREASE AFTER DETERMINATIONS, IN 33 PORTLAND AND 7 SALEM RETAIL STORES.

Type of store.	Number of women.	Average weekly wages.	Average weekly P. M.'s.	Average weekly commissions.	Total average weekly earnings.	Average weekly hours.
PORTLAND.						
Department, dry-goods, and 5 and 10 cent stores:						
Before determinations	1,632	$7.87	$0.022	....	$7.89	39.59
After determinations	1,345	$8.65	$0.017	$0.004	$8.67	40.34
Per cent increase (+) or decrease (−)	....	+9.9	−22.7	....	+10.0	+2.0
Specialty stores:						
Before determinations	167	$9.85	$0.11	$0.24	$10.20	40.73
After determinations	181	$9.67	$0.05	$0.24	$9.96	37.89
Per cent increase (+) or decrease (−)	....	−1.8	−54.5	....	−2.4	−7.0
Neighborhood stores:						
Before determinations	34	$9.16	$0.41	$0.09	$9.66	50.19
After determinations	20	$10.23	....	$0.08	$10.31	47.27
Per cent increase (+) or decrease (−)	....	+11.7	−100.0	−11.1	+6.7	−5.8
Total:						
Before determinations	1,833	$8.07	$0.04	$0.02	$8.13	39.89
After determinations	1,546	$8.79	$0.02	$0.04	$8.85	40.14
Per cent increase (+) or decrease (−)	....	+8.9	−50.0	+100.0	+8.9	+0.6
SALEM.						
Dry-goods, specialty, and 5 and 10 cent stores:						
Before determinations	97	$7.65	....	$0.013	$7.66	42.81
After determinations	96	$8.15	....	$0.023	$8.17	41.86
Per cent increase (+) or decrease (−)	....	+6.5	....	+76.9	+6.8	−2.2
Grand total:						
Before determinations	1,930	$8.05	$0.04	$0.02	$8.11	40.04
After determinations	1,642	$8.76	$0.02	$0.03	$8.81	40.24
Per cent increase (+) or decrease (−)	....	+8.8	−50.0	+50.0	+8.6	+0.5

---

[1] The amount and causes of unemployment among retail store women in Boston was the subject of a special study, the results of which will appear in Bulletin of the United States Bureau of Labor Statistics, No. 182.

With the establishment of a minimum wage the legal working hours in Portland mercantile establishments were restricted to 8 hours and 20 minutes a day, or 50 hours a week, the closing hour to be not later than 6 o'clock in the afternoon. Outside of Portland the order of the industrial commission restricted the hours to 54 per week, with an 8.30 p. m. closing hour. Prior to this the legal minimum had been the 10-hour day and 60-hour week. None of the 40 retail stores included in the study, however, worked the legal maximum hours in 1913. The nominal hours ranged from 48 to 56½ per week in Portland and from 48 to 56 in Salem. With the fixing of the maximum the nominal hours varied from 48 to 50 in Portland, the largest number of employees being affected by a 49½-hour schedule. In Salem the hours ranged from 48 to 54 hours per week. In 1914, as compared with 1913, the nominal hours in some stores had decreased, in others they increased slightly. These changes in establishment hours in the two periods make it impossible to judge of the regularity of employment by the actual hours worked without comparing also the changes in nominal hours.

The average hours of employment per week for the regular women employees in the 40 stores covered in this study were approximately 40 in the 1913 period and scarcely a quarter of an hour more in the corresponding period in 1914. As stated heretofore the records of hours worked were secured, except in the case of one firm, for a two-months period before and after the wage determinations. How much of the average time lost was due to voluntary absence from duty, how much to illness, how much to family demands, how much to lay-off, and how much to first employment are not known. The period studied covered the spring season, when the ebb and flow of employment would not be as great as in the dull summer months or in the months preceding and succeeding the holiday pressure. Because of the business depression prevailing in 1914 and the consequent effort to reduce the force, the number of new employees taken on for the first time during the period covered in 1914 was comparatively small,[1] so that average hours worked in 1914 were not materially influenced by women coming into the stores late in the period studied.

With less than a quarter of an hour more of service per week in the 1914 period, women were paid on the average $8.76 in wages after the minimum-wage determinations, as against $8.05 before, an increase of 71 cents per week, or 8.8 per cent. The additional sums affecting earnings and commonly known as P. M.'s, paid for selling certain lines of goods, and bonuses paid for finding mistakes in sales checks, have been fewer in number and less in amount since the minimum-wage determinations. As the average amount received per week from these sources was but 4 cents, the decrease of 50 per cent in P. M.'s and bonuses, or 2 cents, means very little in the earnings of the average woman. This is especially so since the custom of granting commissions either on all sales or sales above a specified amount has increased slightly. The average commission earned by all girls was 3 cents, as against 2 cents per week in 1913. The average weekly earnings for these store employees totaled, therefore, $8.11 before and $8.81 after the minimum-wage determinations.

---

[1] See pp. 53 and 54 for a detailed discussion of this subject.

These earnings are $1.81 less per week in 1913 and $1.52 less per week in 1914 than the average rate of pay for the respective periods. In other words the average earnings for all women increased 8.6 per cent while the average rates of pay increased but 4.1 per cent.[1]

Considering each group of stores separately, Table 8 shows that in the six Portland department, dry-goods, and 5 and 10 cent stores the average weekly earnings were $8.68 after the wage determinations, an increase of 10 per cent over the year before, and accompanied only by about a 2 per cent addition in the average hours worked. In the cloak, suit, and waist specialty houses, where the average rate of pay fell nearly 5 per cent, the earnings decreased only 2.4 per cent, with a decrease in average weekly hours of almost three hours, or 7 per cent. The earnings of the neighborhood-store women and the women employed in Salem both increased more than 6 per cent, while the hours for the first group decreased approximately 6 per cent and for the second group but 2 per cent.

How the earnings in these periods varied with the age and experience of the individual is shown in Table 9. The girls under 18 years who had been earning an average of $4.82 per week in 1913 still earned less than $5 after the minimum-wage determinations. Their earnings had increased to $4.96, approximately 3 per cent, while their hours had decreased 3.4 per cent. The 5.2 per cent increase in rates of pay for minors[2] resulted in a 3 per cent increase in their earnings, the difference being due to a reduction in the regularity of their employment.

---

[1] See Table 4, p. 18.

[2] See Table 5, p. 19.

TABLE 9.—AVERAGE WEEKLY EARNINGS AND HOURS OF LABOR OF WOMEN AND GIRLS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, GROUPED ACCORDING TO AGE AND EXPERIENCE, IN 33 PORTLAND AND 7 SALEM RETAIL STORES.

Type of store.	Classification of women employees.								
	Girls under 18.			Adult inexperienced.			Adult experienced.		
	Number.	Average weekly earnings.	Average weekly hours.	Number.	Average weekly earnings.	Average weekly hours.	Number.	Average weekly earnings.	Average weekly hours.
PORTLAND.									
Department, dry-goods, and 5 and 10 cent stores:									
Before determinations...	135	$4.71	40.04	177	$5.22	37.75	1,047	$9.77	42.10
After determinations....	157	$4.92	39.16	139	$5.67	40.94	941	$10.21	41.39
Per cent increase (+) or decrease (−)..........	+16.3	+4.5	−2.2	−21.5	+8.6	+8.5	−10.1	+4.5	−1.7
Specialty stores:									
Before determinations...	......	......	......	2	$4.75	41.75	165	$10.27	41.57
After determinations....	3	$4.06	33.81	4	$4.85	34.24	174	$10.18	38.05
Per cent increase (+) or decrease (−)..........	......	......	......	+100.0	+2.1	−18.0	+5.5	−0.9	−8.5
Neighborhood stores:									
Before determinations...	3	$10.97	50.00	6	$6.89	47.78	25	$10.17	50.79
After determinations....	......	......	......	5	$8.09	45.50	15	$11.04	47.90
Per cent increase (+) or decrease (−)..........	......	......	......	−16.7	+17.4	−4.8	−40.0	+8.6	−5.7
Total:									
Before determinations..............	138	$4.85	40.25	185	$5.27	38.12	1,237	$9.85	42.09
After determinations..............	160	$4.96	39.06	148	$5.69	40.91	1,130	$10.20	40.96
Per cent increase (+) or decrease (−)....	+11.6	+2.3	−3.0	−20.0	+8.0	+7.3	−8.7	+3.6	−2.7
SALEM.									
Dry-goods, specialty, and 5 and 10 cent stores:									
Before determinations...	7	$4.20	41.88	8	$6.25	48.17	82	$8.10	42.37
After determinations....	4	$4.80	34.80	14	$5.47	40.64	78	$8.84	42.44
Per cent increase (+) or decrease (−)..........	−42.9	+14.3	−16.9	+75.0	−12.5	−15.6	−4.9	+9.1	+0.2
Grand total:									
Before determinations..............	145	$4.82	40.33	193	$5.31	38.54	1,319	$9.74	42.11
After determinations..............	164	$4.96	38.96	162	$5.67	40.89	1,208	$10.12	41.06
Per cent increase (+) or decrease (−)....	+13.1	+2.9	−3.4	−16.1	+6.8	+6.1	−8.4	+3.9	−2.5

The adult women without a year's experience continue to earn less than $6, although here, too, the earnings have increased, the change being from $5.31 to $5.67 per week. This 6.8 per cent increase in their earnings was noticeable in view of the 0.6 per cent decrease in their rates of pay.[1] The larger earnings were accompanied by a 6 per cent increase in hours worked.

The average earnings of experienced adult women were $10.12 per week after the wage determinations, an increase of about 4 per cent over the average earnings in 1913 as compared with a 2 per cent increase in rates.[2] The earnings of the experienced women, who received a rate of exactly $9.25 in Portland or $8.25 in Salem, the minimum sum decided by the commission to be necessary to maintain a self-supporting woman in frugal but decent conditions, are shown in Table 10.

---

[1] See Table 6, p. 21.

[2] See Table 7, p. 22.

TABLE 10.—AVERAGE WEEKLY EARNINGS RECEIVED IN 1914 BY EXPERIENCED ADULT WOMEN WHOSE WEEKLY RATE OF PAY WAS $9.25 IN PORTLAND AND $8.25 IN SALEM.

Type of store.	Number of women.	Average weekly wages.	Average weekly P. M.'s.	Average weekly commissions.	Total average weekly earnings.
PORTLAND.					
Department, dry-goods, and 5 and 10 cent stores	313	$7.61	(1)	$0.013	$7.62
Specialty stores	18	5.70			5.70
Neighborhood stores	5	9.23			9.23
Total	336	7.75	(1)	(1)	7.75
SALEM.					
Dry-goods, specialty, and 5 and 10 cent stores	7	6.91			6.91
Grand total	[2] 343	7.73	(1)	(1)	7.73

[1] Less than 1 cent.

[2] Not including 9 women whose regular employment began with the opening of a new department on the last day of the period covered in the investigation.

Only 123, or a little more than one-third, of these women earned their full rate of $9.25 or $8.25 per week throughout the period covered. The average earnings for all in Portland were $7.75 per week, in Salem $6.91.

This showing in earnings emphasizes the need of analyzing closely the causes of unemployment in the department and other retail stores in order to determine the normal earning possibility under a given rate. Few of the women whose minimum rate was fixed at $6 or of the women whose minimum rate was fixed at $9.25 really earned that amount throughout the period covered. The increase in earnings since the minimum-wage determinations, however, as has been shown, has been greater than the increase in rates.

SELLING EFFICIENCY BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

Whether minimum-wage legislation reacts upon the efficiency of the wage earner is a question earnestly discussed. The legal guaranty of a minimum equal to a living wage is regarded by some as likely to lure the less conscientious employee toward relaxed efforts.

In a situation such as exists in Oregon, where the female labor supply[1] is in excess of the demands, there would be no reason why any such person could not be discharged. Interviews with the women employees impressed this fact upon the agents, for all women dependent on their earnings were greatly troubled over the decrease in their sales.

---

[1] While no statistical survey was made of the labor supply, that it was in all respects ample was the testimony of employers, and this was further evidenced by the large number of applicants waiting upon the superintendents of employees.

The only measurement of efficiency of store employees that was obtainable was the amount of sales of the saleswomen. Admittedly these are not a complete or always a fair basis upon which to judge of a woman's efficiency. Other duties which she performs, such as care of stock, have a value to the employer. Sometimes certain circumstances make it impossible for a woman to sell as much at one time as another. For example, in one year the head saleswoman in a certain department took care to see that the customers were distributed evenly among her assistants. She did not wait on a patron unless these women were busy or were having difficulty in making the sale. The next year a new head of the department was introduced whose system was quite different. This woman insisted that no girl in her department wait on a customer unless she, the head of the department, was busy. The result, as told by her assistants, and as shown by the accounts of the department, was that the sales of the assistant saleswomen had very much decreased, while the sales of the head saleswoman had correspondingly increased. These assistant saleswomen could not with fairness be held responsible for these decreases.

The sales slip is usually taken as the measurement of a woman's efficiency and her rate of pay is as commonly regulated thereby. In the following table, therefore, the sales were used as a measure to determine the relative increase or decrease after the wage determinations in the efficiency of saleswomen receiving different rates of pay.

TABLE 11.—PER CENT OF INCREASE OR DECREASE IN AVERAGE DAILY SALES AFTER MINIMUM-WAGE DETERMINATIONS OF SALESWOMEN UNDER 18, INEXPERIENCED ADULT SALESWOMEN, AND EXPERIENCED ADULT SALESWOMEN RECEIVING THE MINIMUM RATE OR LESS, COMPARED WITH THE PER CENT OF INCREASE OR DECREASE IN AVERAGE DAILY SALES OF ALL SALESWOMEN RECEIVING MORE THAN THE MINIMUM RATE IN 3 PORTLAND RETAIL STORES.

[The significant comparisons in this table are in the sale increases or decreases of the several groups and not in the actual amount sold by such groups. Data for women whose age and experience were not reported or whose sales were not separately reported, together with transfer sales not credited, are not included in the classification but are included in the totals for all women.]

Classification of saleswomen.	Before determinations.			After determinations.			Per cent of increase (+) or decrease (−) in average daily sales after determination.
	Total days.	Total sales.	Average sales per day.	Total days.	Total sales.	Average sales per day.	
Women affected by minimum-wage rulings:							
Inexperienced minor and adult women	1,659.98	$38,962.24	$23.47	1,574.88	$39,476.11	$25.07	+ 6.8
Experienced adult women receiving $9.25 per week or under	6,293.26	170,060.01	27.02	4,272.75	112,808.05	26.40	− 2.3
Total	7,953.24	209,022.25	26.28	5,847.63	152,284.16	26.04	− .9
Women not affected by minimum-wage rulings:							
Experienced adult women receiving more than $9.25 but not more than $11.54 per week	3,426.59	117,490.58	34.29	4,297.61	131,222.42	30.53	−11.0
Experienced adult women receiving more than $11.54 but not more than $15 per week	2,977.97	132,974.79	44.65	2,710.46	106,685.17	39.36	−11.8
Experienced adult women receiving over $15 per week	1,591.80	100,581.21	63.19	1,697.30	93,419.96	55.04	−12.9
Total	7,996.36	351,046.58	43.90	8,705.37	331,327.55	38.06	−13.3
Total, all women	17,231.64	587,455.50	34.09	15,871.37	507,636.10	31.98	− 6.2

This table was confined to three stores, because in three only were there a sufficient number of saleswomen in comparable groups before and after the minimum-wage determination. The average sales per day of work in these stores had decreased 6.2 per cent in the 1914 period. An increase, therefore, in sales in any group of individuals would be counter to the general trend. Did the women affected by the minimum-wage determinations contribute more than their share of the decrease? The average sales of the three groups of women that were affected by the minimum wage—minors, inexperienced adult, and such of the experienced adult as were receiving $9.25 or less in both years—decreased 0.9 of 1 per cent. The sales of women in the same stores receiving more than the $9.25 minimum, and therefore not affected by the determinations, were lowered 13.3 per cent.

Analyzing the factors that entered into this result, as shown in Table 11, it becomes plain that the only groups showing any increase in sales are the minors and inexperienced adult women. The minors are selling in departments such as the notion, handkerchief, and pattern, departments less affected by a depression in business than others; the inexperienced adult women, however, are sprinkled throughout all the departments. The sales made by experienced adult women who received $9.25 or less in 1913 and 1914 decreased 2.3 per cent. It should be noted that this group receiving $9.25 or less is made up of two classes in 1914, the first receiving $9.25, the exact minimum, and the second receiving, in violation of the law, less than $9.25. The sales made by this second class of women decreased in practically the same proportion as those made by the women receiving $9.25, the exact minimum rate.

Those made by experienced adult women receiving over $9.25 but not more than $11.54[1] decreased 11 per cent. The sales of women getting over $11.54 but under $15 weekly decreased 11.8 per cent, while the sales made by women getting more than $15 weekly decreased 12.9 per cent. These higher-paid women are in departments devoted to the more expensive goods. Naturally a business depression makes itself felt most in such departments, and this fact accounts in part for the excessive decrease in the sales of women getting the rates to which wage determinations did not apply.

To what extent the small decrease of sales among those affected by the minimum was due to a maintenance of the efficiency in the individual and to what extent it was due to the elimination of the inefficient can not be stated from this table, as these sales were not necessarily made by identical groups of women in the two periods. Until a large number of individuals affected by the minimum-wage determinations can be found in the same department before and after the rulings, working side by side with women getting rates not affected by the determinations, no definite conclusion as to the effects of the minimum on individual efficiency can be shown. The numbers in Oregon did not permit of such a selection.

---

[1] Equivalent to $50 a month.

LABOR COST BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

When business is prospering wage increases are a matter for consideration; in a period of depression they are granted only after careful deliberation. The year 1914, the first year in which the minimum-wage determinations were in operation in Oregon, was considered a poor year in the mercantile business. To show how changes in weekly wage payments, after the minimum-wage determitions, compared with changes in the weekly sales, is the purpose of Table 12.

TABLE 12.—PER CENT WHICH AVERAGE WEEKLY WAGE PAYMENTS TO SELLING AND TO NONSELLING FORCES COMBINED WERE OF AVERAGE WEEKLY SALES BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS IN 24 PORTLAND AND 7 SALEM RETAIL STORES.

[In each case the sales and wage payments are shown to the nearest dollar, and for this reason the totals are not always exactly equal to the sum of the items. The percentages are based on the exact amounts, including cents.]

Type of store.	Females.			Males.			Total.		
	Average weekly wage payments.	Average weekly sales.	Per cent wage payments are of sales.	Average weekly wage payments.	Average weekly sales.	Per cent wage payments are of sales.	Average weekly wage payments.	Average weekly sales.	Per cent wage payments are of sales.
PORTLAND.									
Department, dry-goods, and 5 and 10 cent stores:									
Before determinations	[1] $12,878	[1] $107,251	12.0	[1] $14,288	$68,088	21.0	[1] $27,165	[1] $175,339	15.5
After determinations	[1] $11,698	[1] $93,077	12.6	[1] $13,524	$65,279	20.7	[1] $25,221	[1] $158,356	15.9
Per cent increase (+) or decrease (−)	−9.2	−13.2	......	−5.3	−4.1	......	−7.2	−9.7	......
Specialty stores:									
Before determinations	$1,704	$14,340	11.9	$714	$4,962	14.4	$2,417	$19,303	12.5
After determinations	$1,803	$16,505	10.9	$708	$4,153	17.0	$2,511	$20,658	12.2
Per cent increase (+) or decrease (−)	+5.8	+15.1	......	−0.9	−16.3	......	+3.9	+7.0	......
Neighborhood stores: [2]									
Before determinations	$232	$2,446	9.5	$210	$2,376	8.8	$442	$4,821	9.2
After determinations	$132	$1,279	10.3	$191	$1,949	9.8	$324	$3,228	10.0
Per cent increase (+) or decrease (−)	−43.0	−47.7	......	−8.8	−18.0	......	−26.7	−33.1	......
Total:									
Before determinations	$14,813	$124,037	11.9	$15,211	$75,426	20.2	$30,025	$199,463	15.1
After determinations	$13,633	$110,862	12.3	$14,423	$71,381	20.2	$28,056	$182,242	15.4
Per cent increase (+) or decrease (−)	−8.0	−10.6	......	−5.2	−5.4	......	−6.6	−8.6	......
SALEM.									
Dry-goods, specialty, and 5 and 10 cent stores:									
Before determinations	$743	$5,439	13.7	$495	$1,978	25.0	$1,238	$7,417	16.7
After determinations	$785	$6,258	12.5	$495	$1,822	27.1	$1,280	$8,080	15.8
Per cent increase (+) or decrease (−)	+5.6	+15.1	......	−0.1	−7.9	......	+ 3.3	+8.9	......
Total:									
Before determinations	[1] $15,557	[1] $129,476	12.0	$15,706	$77,404	20.3	$31,263	$206,880	15.1
After determinations	[1] $14,418	[1] $117,119	12.3	[1] $14,917	$73,203	20.4	$29,335	$190,322	15.4
Per cent increase (+) or decrease (−)	−7.3	−9.5	......	−5.0	−5.4	......	−6.2	−8.0	......

---

[1] Includes wage payments for extra help and sales made by such help.

[2] 9 neighborhood stores did not report sales, and have therefore not been included in this table.

Sales made in March and April, 1914,[1] were, according to the above table, 8 per cent less than sales made in the same stores in these months in 1913. Yet the rates of pay of a large number of women employees had been raised to meet the conditions imposed by the determinations of the Oregon Industrial Welfare Commission. In spite of the increase of 4 per cent in the average rates of pay for women and of 8.6 per cent in their average earnings, the total weekly wage payments decreased 7.3 per cent in the period covered in 1914, a decrease made possible by the reduction in the number of women employed. On the other hand, the sales made by women decreased 9.5 per cent. By reference to Table 12 it is seen that before the determinations the average weekly wage payments to women were 12 per cent and after the determinations 12.3 per cent of the average weekly sales, or 12 and 12.3 cents, respectively, out of every dollar of sales. The net female-labor cost, therefore, increased 3 mills on every dollar of sales.

The male-labor cost increased only 1 mill on every dollar of sales, but the number of men and the amount of money involved were not sufficient to change the total labor cost as much as a half mill. Consequently the net increase in the cost of labor, male and female, was 3 mills and a negligible fraction on a dollar of sales. This increase in wage payments was not borne equally by all stores or groups of stores. Unquestionably the increase in labor cost was due primarily to a rise in cost in the six department, dry-goods, and 5 and 10 cent stores of Portland, the group employing the largest number of people, and was emphasized by the big increase in the labor cost of the neighborhood stores. These rises in labor cost were offset somewhat by a decrease in labor cost of 3 mills and 9 mills, respectively, in Portland specialty and Salem stores. A study of the detailed table on page 55 will make plain that the cost of labor was kept within the limits named largely by money-saving adjustments in the female nonselling force and in the male selling force.

---

[1] Conditions peculiar to one firm's business rendered these months not comparable in the two years; the records for September in 1913 and 1914 were therefore substituted.

PORTLAND DEPARTMENT, DRY-GOODS, AND 5 AND 10 CENT STORES.

NUMBERS EMPLOYED BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

Department and dry-goods stores are very much alike in business organization and service required of employees. The 5 and 10 cent store differs in organization and service requirements not only from these stores but also from the specialty and neighborhood stores. In other words, the 5 and 10 cent store really presents a problem in itself in conducting an investigation into the effect of minimum-wage determinations. But to treat it separately was not possible in this study without thereby disclosing to the public the records of individual firms. Combining their records with the neighborhood or specialty stores, where comparatively few women are employed, would have unduly influenced the figures and concealed conditions prevailing in these establishments. It was necessary, therefore, to include them with the department and dry-goods stores where the numbers were too large to be submerged.

The records for three department stores, two dry-goods stores, and one 5 and 10 cent store were included in this group. The records of the numbers of women employed, the individual rates, hours worked, earnings, and sales were taken for March and April, 1913 and 1914.[1] For men only the numbers, the earnings, and the sales were taken in the same periods. Three of these stores pay their employees weekly or biweekly, the other three pay semimonthly. Data had to be taken for 48 days in the first case and 52 days in the other and had to be reduced to a common basis of a six-day week. Information concerning the age and experience of women employees was obtained from the stores' application blanks. Because some files were incomplete and some application blanks were not carefully filled out, there were a number of women whose age and experience were not obtainable from these records. Many of these were traced to their homes and the information obtained from them personally. Out of 1,632 employed in 1913 and 1,345 in 1914, the final number for whom age but not experience records was obtained was 121 in 1913 and 49 in 1914. The number about whom no definite information for either age or experience was forthcoming was reduced to 152 in 1913 and 59 in 1914.

In the six stores covered in the investigation 45 per cent of the women were employed in the selling departments. The demands upon the department and dry-goods store saleswomen—showing goods, suiting the taste and desires of customers, making sales checks, caring for stock, and cleaning and arranging show cases—are well known to the public.

---

[1] Conditions peculiar to one firm's business rendered these months not comparable in the two years; the records for September in 1913 and 1914 were therefore substituted.

In some stores the goods sold and the money and sales checks are given to a woman called the "floor cashier," who wraps the bundles, inspects the checks for errors, and makes change by means of a cash register. In other stores bundles are wrapped by one woman and the money and the sales checks are sent through a tube to the "tube cashier," whose sole work consists in inspecting checks and in making change. These floor and tube cashiers, who are held responsible for the money that passes through their hands, constituted from 6 to 7 per cent of the force in the six stores. The women who only wrap the bundles, and the cash girls who carry goods to the cashiers, errand girls, girls who put the price tags on goods, and stock girls formed approximately 12 per cent of the store force. The work done by these girls requires the least skill of any work given to women in mercantile establishments. The alteration, millinery, corset, upholstery, and other workrooms gave employment to about 17 per cent of the women in 1913. Over 13 per cent of the women worked in the office, where the work varies from a simple listing of goods sold to responsible bookkeeping. Executive positions, such as buyers or department heads, were held by but a little over 1 per cent. The remainder of the store force—from 3 to 4 per cent—were engaged as janitresses, matrons, waitresses, detectives, or telephone operators.

In describing the work which women do in the six Portland stores the slightly different organization in the 5 and 10 cent stores should be noted. With the exception of some office help, they employed women whose duties involved giving whatever slight assistance a purchaser needed to buy wares on display, wrapping the bundles, and making the change on a cash register. These women are called saleswomen and are classed with saleswomen in this report, although the difference in the demands made upon them from those made on saleswomen in the typical department and dry-goods stores are important.

In Table 13, which follows, comparison is made of the actual numbers of women and girls employed in each occupation before and after the minimum-wage determinations and of the equivalent full-time workers classified according to age and experience. The per cent of increase or decrease in numbers after the determinations is also shown.

TABLE 13.—ACTUAL NUMBER OF WOMEN EMPLOYED AND THEIR EQUIVALENT IN OF MEN EMPLOYED BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, FIED OCCUPATIONS, IN 6 PORTLAND DEPARTMENT, DRY-GOODS, AND 5 AND 10

Occupation.	Total employees.[1]			Total men.			Total women.		
	Before determinations.	After determinations.	Per cent increase (+) or decrease (−).	Before determinations.	After determinations.	Per cent increase (+) or decrease (−).	Before determinations.	After determinations.	Per cent increase (+) or decrease (−).
Sales force:									
Actual number	977	851	−12.9	239	217	− 9.2	738	634	−14.1
Equivalent full-time workers							549	500	− 8.9
Workroom help:									
Actual number	314	204	−35.0	35	29	−17.1	279	175	−37.3
Equivalent full-time workers							221	151	−31.7
Office help:									
Actual number	288	286	− .7	71	82	+15.5	217	204	− 6.0
Equivalent full-time workers						[3]	182	177	− 2.7
Cash girls, bundle wrappers, errand girls, etc.:									
Actual number	286	237	−17.1	76	68	−10.5	210	169	−19.5
Equivalent full-time workers							160	131	−18.1
Cashiers:									
Actual number	100	103	+ 3.0		2		100	101	+ 1.0
Equivalent full-time workers							89	82	− 7.9
Buyers, department heads, and floorwalkers:									
Actual number	108	103	− 4.6	91	79	−13.2	17	24	+41.2
Equivalent full-time workers							16	23	+43.8
Miscellaneous:									
Actual number	441	371	−15.9	367	325	−11.4	74	46	−37.8
Equivalent full-time workers							52	36	−30.8
Total:									
Actual number	[4]2,511	[5]2,147	−14.5	879	802	− 8.8	[4]1,632	[5]1,345	−17.6
Equivalent full-time workers							1,269	1,100	−13.3

---

[1] Not including extra male or female help whose identity from week to week could not be traced, such female help being equal to 3 women working full time; nor does it include 20 saleswomen whose regular employment began with the opening of a new department on the last day of the period covered in the investigation.

[2] While age and experience records could not be secured for these women—not one of whom was on the rolls for both years—information obtained from their fellow workers, their rates of pay, and the statements of employers that they had dismissed adult experienced women in certain unskilled occupations rather than pay the required $9.25, clearly indicates that in 1913 these women were adults and largely adult experienced women. The same sources of information clearly indicate that the girls for whom records could not be found in 1914 were minors, adult inexperienced and adult experienced. See text discussion, pp. 16 and 40.

[3] Less than one-half full-time worker.

FULL-TIME WORKERS CLASSIFIED BY AGE AND EXPERIENCE, AND ACTUAL NUMBER WITH PER CENT OF INCREASE OR DECREASE AFTER DETERMINATIONS, FOR SPECI-CENT STORES.

Classification of women employees.													
Girls under 18.			Adult inexperienced.			Adult experienced.			Adults, experience not definitely known.		Age and experience not definitely known.[2]	
Before determinations.	After determinations.	Per cent increase (+) or decrease (−).	Before determinations.	After determinations.	Per cent increase (+) or decrease (−).	Before determinations.	After determinations.	Per cent increase (+) or decrease (−).	Before determinations.	After determinations.	Before determinations.	After determinations.
16	15	− 6.3	76	63	−17.1	541	496	− 8.3	40	21	65	39
13	15	+ 15.4	47	50	+ 6.4	452	399	−11.7	22	9	15	27
2	1	− 50.0	17	5	−70.6	241	163	−32.4	19	6	....	....
2	1	− 50.0	14	4	−71.4	193	140	−27.5	12	6	....	....
30	24	− 20.0	25	26	+ 4.0	139	139	....	10	11	13	4
26	18	− 30.8	21	22	+ 4.8	119	127	+ 6.7	8	9	8	1
73	78	+ 6.8	39	40	+ 2.6	36	39	+ 8.3	18	4	44	8
55	61	+ 10.9	32	33	+ 3.1	29	31	+ 6.9	14	3	30	3
14	39	+178.6	17	9	−47.1	39	45	+15.4	....	....	30	8
12	29	+141.7	16	5	−68.8	35	41	+17.1	....	....	26	7
....	....	....	....	....	....	17	24	+41.2	....	....	....	....
....	....	....	....	....	....	16	23	+43.8	....	....	....	....
1	1	....	4	1	−75.0	35	37	+ 5.7	34	7	....	....
(3)	1	....	2	1	−50.0	28	29	+ 3.6	22	5	....	....
[6] 135	[6] 157	+ 16.3	[6] 177	[7] 139	−21.5	[6] 1,047	[8] 941	−10.1	121	49	152	59
108	125	+ 15.7	132	115	−12.9	872	790	− 9.4	78	32	79	38

[4] 1 minor and 1 adult inexperienced and 1 adult experienced woman worked in 2 occupations.
[5] 1 minor and 5 adult inexperienced and 2 adult experienced women worked in 2 occupations.
[6] 1 worked in 2 occupations.
[7] 5 worked in 2 occupations.
[8] 2 worked in 2 occupations.

According to the above table, in these six department, dry-goods, and 5 and 10 cent stores a 14.5 per cent decrease occurred in the total number of men and women employees in the period covered in 1914, as compared with the same period in 1913. All occupations save the cashiers shared this decrease, although not equally. The workroom employees engaged in altering garments, making and trimming hats, or sewing pennants and upholstery goods sustained the largest decrease, namely, 35 per cent. This reduction in numbers was brought about by a falling off in the amount of altering ordered on ready-made garments. An agreement had been made in 1914 by the department and specialty stores to charge for alterations. The result was that many women purchasers of garments who used to have the necessary alterations made in the store did the work themselves in 1914. Among the bundle-wrapper and messenger group a 17 per cent decrease in numbers employed occurred. This, too, was occasioned largely by readjustments in some stores. Reorganization of the messenger service in 1914, where a lack of system had theretofore prevailed, necessarily resulted in a material reduction in the force of messengers. Doing away with the restaurant and soda fountain in one store in 1914 accounted for the decrease of the female labor force in the miscellaneous group. The numbers of men and women employed in selling were reduced approximately 13 per cent. The office force remained almost stationary, while the floor and tube cashiers increased very slightly.

These losses of employment occurred among men as well as among women. Salesmen decreased less rapidly than saleswomen, tailors less rapidly than tailoresses, boy messengers less rapidly than girl messengers. As long as men could not hold their own positions in these occupations, they could not have taken the places vacated by women to any extent. In the office only did the numbers of men increase while the numbers of women decreased. But Table 13 shows that the dismissed women were girls under 18 and subject only to the $6 a week determination. It is not probable that adult male labor was employed in occupations commanding such low rates. The secretaries in several stores confirmed this inference. Believing that the order for a 6 o'clock closing hour applied to all women employed in mercantile establishments,[1] they had replaced some competent women bookkeepers by male bookkeepers, so that the occasional nightwork required in obtaining balances might go on unhindered. Other experienced adult women were employed in less important office occupations, however, so that the number of experienced adult women in the office was the same in both years, even though the total number of women workers decreased. Evidently the increase in men and the decrease in girls under 18 who had been receiving $6 or more in 1913 in the office can not be associated with the minimum-wage determinations. The women buyers and department heads appear to have increased at the expense of men buyers and department heads. The group of miscellaneous occupations is not comparable for men and women, as the largest group of men included here are employed as drivers, warehouse and stock men, elevator attendants, and in other occupations where no women are employed. On the whole, therefore, little displacement of women by men seems to have occurred in these six large stores.

---

[1] No decision as to whether this closing hour applies to store employees not engaged in selling had been rendered by the State attorney at this time.

The decrease measured in the foregoing paragraphs was the decrease in the numbers of men and women whose names appeared on the pay rolls during each period covered. These numbers do not accurately measure the real decrease in the amount of work unless the change in the regularity of employment is also known. Because the purpose of this study was to ascertain the changes, since the wage determinations, in women's status, the regularity of men's employment was not obtained. The nominal hours in five of these six establishments changed in 1914, thus making it impossible to obtain the relative regularity of employment merely by a comparison of the hours actually worked in each year. The method used to measure the difference in regularity in this study was to compare the number of women and girls who, if employed full time in each period, would have worked the same number of hours as was worked by the actual number of women and girls employed. Table 13 shows that the decrease in the number of possible full-time women in this group of stores was 13.3 per cent, as compared with a 17.6 per cent decrease in actual numbers. This decrease in full-time women in the six Portland stores almost exactly corresponds with the 13.2 per cent decrease in women's sales. Among the saleswomen the real decrease in employment was 8.9 per cent, a decrease considerably less than the decrease in their sales. Obviously the nonselling female force decreased much more rapidly. The foregoing paragraphs (p. 38) describing the readjustments in the alteration rooms, the messenger service, and the miscellaneous occupations, explain this result.

The Oregon Industrial Welfare Commission, in its wage determinations, classified female employees into girls under 18 years, adult inexperienced women 18 years of age and over with experience of not more than one year in an occupation, and adult experienced women 18 years of age and over with more than a year of experience in an occupation. Of the total number of female employees included in the investigation, 1,632 in 1913 and 1,345 in 1914, there remained 152 in 1913 and 59 in 1914, for whom, as has been stated, statistical information as to age and experience was unavailable. There was reasonably reliable information, however, as to the probable age and experience of these women for whom actual records were not obtainable. None of these women was employed in both years. They were principally the 5 and 10 cent store saleswomen, bundle wrappers and cashiers, and unskilled office help. The employers asserted that experienced adult bundle wrappers and cashiers had been dismissed and girls under 18 put in their places. Women visited, who had been bundle wrappers and cashiers or 5 and 10 cent store saleswomen, said that many others like themselves had been dismissed because they were adults and experienced. And girls who had begun in these occupations since the wage determinations maintained that as minors they were filling the places vacated by experienced adult women. It would seem, therefore, that most of these women, whose age and experience were not definitely known, were experienced adults in 1913, and that the majority were girls under 18 in 1914. In the office the wage rates paid, together with the information given by women working there, would divide the women whose age and experience were not reported principally into inexperienced adults and experienced adults in each year. Roughly, therefore, this group, whose age and experience were not known, can be divided in 1913 into adults, both inexperienced and experienced, but with the experienced predominating; in 1914 into girls under 18, inexperienced adults, and experienced adults not receiving the legal minimum, but with the girls under 18 predominating.

In the group whose ages were definitely known, the girls under 18 increased in numbers. Obviously, accurate information as to the ages of those for whom definite age records were not available would have emphasized this increase. The minors increased largely because a preference for them was shown in the positions of bundle wrapper, messenger, and floor cashier,[1] a preference based on the managers' belief that such positions, in spite of the real responsibility which the last occupation requires, can not pay $9.25 a week. A girl entering at 16 need not be paid increased wages for two years; for every adult who is employed in these occupations the question of whether she is worth $9.25 as a bundle wrapper or a cashier, whether she can be employed as an apprentice elsewhere, or whether she is to be dismissed arises at least one year sooner. Naturally the circumstances favor the girl of 16.

Among those whose experience was definitely known, the inexperienced adult women were reduced 21.5 per cent in actual numbers, but only about 13 per cent in possible full-time numbers. To what extent these per cents would be changed by the numbers of inexperienced women and girls known to be among the group not reporting definitely on this question of experience in both years can not be measured. Undoubtedly besides suffering a reduction in numbers in the occupations in which the girls under 18 have gained, the inexperienced adults have been less desired in the workroom than before. In the selling department, however, in spite of the decrease in actual numbers, the equivalent full-time women employed were increased.

---

[1] Because of the number whose age and experience records were not obtained for this occupation, this showing is blurred in Table 13. The text statement as to the occupation is based on the assertions of the employers who dismissed the women, of the girls dismissed, and of girls taking their places.

The experienced women employed in these six stores decreased 9.4 per cent in full-time numbers. The biggest reduction occurred in the workroom force (27.5 per cent) and for reasons explained on page 38.

As has been shown by the foregoing table, a decrease of 11.7 per cent occurred in the number of full-time, experienced, adult saleswomen. Table 14, which follows, shows what increases or decreases in numbers occurred in each of the various selling departments. The possible full-time experienced adults decreased in all selling departments save in muslin underwear, ribbons, and bargains. Their number decreased most heavily in the crockery and silverware, and the corsets departments.

TABLE 14.—ACTUAL NUMBER OF WOMEN AND GIRLS EMPLOYED AND THEIR EQUIV AND AFTER MINIMUM-WAGE DETERMINATIONS, WITH PER CENT OF INCREASE OR 6 PORTLAND DEPARTMENT, DRY-GOODS, AND 5 AND 10 CENT STORES.

[Percentages of increase or decrease were not computed for those under 18

Department.	Total women employed.		
	Before determinations.	After determinations.	Per cent increase (+) or decrease (−).
Cloak, suit, and waist:			
Actual number	75	80	+ 6.7
Equivalent full-time workers	59	60	+ 1.7
Jewelry, stationery, books, pictures, music, art needlework:			
Actual number	69	52	−24.6
Equivalent full-time workers	52	37	−28.8
Millinery:			
Actual number	59	60	+ 1.7
Equivalent full-time workers	46	47	+ 2.2
Muslin underwear:			
Actual number	51	41	−19.6
Equivalent full-time workers	37	32	−13.5
Laces, embroideries, and dress trimmings:			
Actual number	42	31	−26.2
Equivalent full-time workers	32	24	−25.0
Ribbons:			
Actual number	38	39	+ 2.6
Equivalent full-time workers	29	31	+ 6.9
Hosiery and knit underwear:			
Actual number	34	38	+11.8
Equivalent full-time workers	30	28	− 6.7
Notions:			
Actual number	33	27	−18.2
Equivalent full-time workers	26	25	− 3.8
Drugs, groceries, pastries, and candy:			
Actual number	32	27	−15.6
Equivalent full-time workers	26	23	−11.5
Yard goods:			
Actual number	31	30	− 3.2
Equivalent full-time workers	27	27	....
Bargains:			
Actual number	29	30	− 3.4
Equivalent full-time workers	13	17	+30.8
Crockery, silverware, and statuary:			
Actual number	25	15	−40.0
Equivalent full-time workers	21	13	−38.1
Gloves:			
Actual number	22	23	+ 4.5
Equivalent full-time workers	19	17	−10.5
Corsets:			
Actual number	19	16	−15.8
Equivalent full-time workers	16	12	−25.0
Handkerchiefs, veilings, and patterns:			
Actual number	18	20	+11.1
Equivalent full-time workers	14	15	+ 7.1
Neckwear:			
Actual number	15	18	+20.0
Equivalent full-time workers	13	13	....
Leather goods and shoes:			
Actual number	13	12	− 7.7
Equivalent full-time workers	12	12	....
Miscellaneous [2]:			
Actual number	146	93	−36.3
Equivalent full-time workers	77	67	−13.0
Total:			
Actual number	[3] 738	[4] 634	−14.1
Equivalent full-time workers	549	500	− 8.9

---

[1] Less than one-half full-time worker.

[2] Includes men's furnishing goods, boys' clothing, infants' and children's wear, umbrellas, toys, cameras, phonographs, sewing machines, hair goods, furs, flags, and 5 and 10 cent departments.

[3] 11 women worked in 2 departments and 1 woman worked in 3 departments.

[4] 16 women worked in 2 departments and 1 woman worked in 3 departments, not including 20 saleswomen whose regular employment began with the opening of a new department on the last day of the period covered by the investigation.

ALENT IN FULL-TIME WORKERS, CLASSIFIED BY AGE AND EXPERIENCE, BEFORE
DECREASE AFTER DETERMINATIONS, FOR SPECIFIED SELLING DEPARTMENTS IN

and for inexperienced adults because of the very small numbers involved.]

Classification of employees.											
Girls under 18.		Adult inexperienced.		Adult experienced.			Adults, experience not definitely known.		Age and experience not definitely known.	
Before determinations.	After determinations.	Before determinations.	After determinations.	Before determinations.	After determinations.	Per cent increase (+) or decrease (−).	Before determinations.	After determinations.	Before determinations.	After determinations.
....	....	1	7	71	73	+ 2.8	3	....	....	....
....	....	(1)	4	57	56	− 1.8	2	....	....	....
1	3	8	3	56	44	−21.4	4	2	....	....
(1)	2	5	2	45	31	−31.1	2	2	....	....
....	....	3	4	54	51	− 5.6	....	2	2	3
....	....	1	3	44	40	− 9.1	....	2	1	2
....	....	6	1	38	39	+ 2.6	7	1	....	....
....	....	4	1	29	30	+ 3.4	4	1	....	....
....	....	4	3	37	26	−29.7	1	2	....	....
....	....	2	3	29	20	−31.0	1	1	....	....
....	1	10	6	27	32	+18.5	1	....	....	....
....	1	9	4	19	26	+36.8	1	....	....	....
1	1	1	5	32	32	....	....	....	....	....
1	(1)	1	4	28	24	−14.3	....	....	....	....
3	5	8	6	21	16	−23.8	....	....	1	....
3	5	5	6	17	14	−17.6	....	....	1	....
....	1	2	1	29	21	−27.6	1	4	....	....
....	1	1	1	24	18	−25.0	1	3	....	....
....	....	2	2	29	27	− 6.9	....	1	....	....
....	....	1	2	26	24	− 7.7	....	1	....	....
....	....	17	14	12	16	+33.3	....	....	....	....
....	....	7	7	6	10	+66.7	....	....	....	....
....	....	6	3	19	12	−36.8	....	....	....	....
....	....	4	3	17	10	−41.2	....	....	....	....
1	1	....	1	20	21	+ 5.0	1	....	....	....
1	(1)	....	1	17	16	− 5.9	1	....	....	....
2	1	....	3	17	12	−29.4	....	....	....	....
2	1	....	2	14	9	−35.7	....	....	....	....
....	3	5	3	12	13	+ 8.3	1	1	....	....
....	3	3	2	11	10	− 9.1	(1)	(1)	....	....
1	....	1	2	13	15	+15.4	....	1	....	....
1	....	1	2	11	10	− 9.1	....	1	....	....
....	....	....	1	13	11	−15.4	....	....	....	....
....	....	....	1	12	11	− 8.3	....	....	....	....
7	2	6	2	50	46	− 8.0	22	5	61	38
5	2	3	2	46	40	−13.0	10	3	13	20
16	[5] 15	[6] 76	[6] 63	[7] 541	[8] 496	− 8.3	41	19	64	41
13	15	47	50	452	399	−11.7	22	14	15	22

[5] 3 women worked in 2 departments.
[6] 4 women worked in 2 departments.
[7] 9 women worked in 2 departments.
[8] 11 women worked in 2 departments.

This table also indicates the selling departments in which apprentices (girls under 18 and inexperienced adults) receive their training. The proportion of apprentices in each department varied from none to 54 per cent of the full-time force in 1913 and from 3.1 per cent to 44 per cent in 1914, the 54 per cent being employed at bargain counters, the 44 per cent at the notion counter. Aside from the 5 and 10 cent stores, whose saleswomen are included under the miscellaneous group of saleswomen, the notions, the handkerchiefs and patterns, and the jewelry, stationery, etc., departments were the only places employing three or more full-time minors in either year. The inexperienced adult women were sprinkled thinly through almost all departments. They increased most (although nowhere more than four possible full-time women) in the cloaks and suits, the millinery, the hosiery and knit underwear, and the corsets, all high-grade departments where the number of possible full-time experienced workers have decreased. These inexperienced adult women have decreased in the art needlework, the muslin underwear, and the ribbon departments, the last two being departments in which the full-time experienced women have increased. These adjustments are only such as might be expected in the normal course of business management.

RATES OF PAY BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

How the rates of pay in the various occupations in the six Portland department, dry-goods, and 5 and 10 cent stores after the minimum-wage determinations compared with the rates existing before the determinations is shown in Table 15. The comparison is made with special reference to the legal minimum rates established in the determinations, namely, $6 for girls under 18 and inexperienced adult women of 18 and over and $9.25 for adult women with more than one year of experience in Portland and $8.25 in other parts of the State.

TABLE 15.—NUMBER AND PER CENT OF WOMEN AND GIRLS WHOSE WEEKLY RATES OF PAY BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS WERE UNDER, EQUAL TO, OR OVER THE MINIMUM RATES FIXED, FOR SPECIFIED OCCUPATIONS, AS SHOWN BY THE PAY ROLLS OF 6 PORTLAND DEPARTMENT, DRY-GOODS, AND 5 AND 10 CENT STORES.

[For girls under 18 and inexperienced adult women of 18 and over the minimum wage is $6; for adult women with more than one year of experience it is $9.25 in Portland.]

Occupation.	Women whose weekly rates of pay were within each classified amount.										Total number.
	Under $6		$6		Over $6 and under $9.23		$9.23 or $9.25		Over $9.25		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Saleswomen:											
Before determinations	104	14.09	39	5.28	238	32.25	83	11.25	274	37.13	738
After determinations	1	.15	68	10.40	100	15.29	175	26.76	310	47.40	654
Workroom help:											
Before determinations	1	.36	9	3.22	60	21.51	32	11.47	177	63.44	279
After determinations	......	......	3	1.70	7	4.00	54	30.86	111	63.43	175
Office help:											
Before determinations	2	.92	38	17.51	73	33.64	15	6.91	89	41.02	217
After determinations	1	.49	32	15.69	37	18.14	51	25.00	83	40.68	204
Cash girls, bundle wrappers, errand girls, etc.:											
Before determinations	20	9.52	117	55.71	62	29.53	5	2.38	6	2.86	210
After determinations	......	......	119	70.42	26	15.38	22	13.02	2	1.18	169
Cashiers:											
Before determinations	3	3.00	44	44.00	36	36.00	7	7.00	10	10.00	100
After determinations	......	......	52	51.49	12	11.88	21	20.79	16	15.84	101
Buyers, heads of departments, and floorwalkers:											
Before determinations	......	......	......	......	......	......	......	......	17	100.00	17
After determinations	......	......	......	......	......	......	......	......	24	100.00	24
Miscellaneous:[1]											
Before determinations	13	17.57	3	4.05	29	39.19	5	6.76	24	32.43	74
After determinations	1	2.17	2	4.35	9	19.57	16	34.78	18	39.13	46
Total:											
Before determinations	[2] 142	8.70	250	15.32	[3] 496	30.39	147	9.01	597	36.58	[4] 1,632
After determinations	3	.22	[5] 270	19.78	[2] 190	13.92	[2] 338	24.76	564	41.32	[6] 1,365

[1] Includes detectives, advertising department, matron, nurses, janitresses, waitresses, etc.

[2] 1 woman worked in 2 occupations.

[3] 2 women worked in 2 occupations.

[4] 3 women worked in 2 occupations.

[5] 6 women worked in 2 occupations.

[6] 8 women worked in 2 occupations.

According to the above table, in these six department, dry-goods, and 5 and 10 cent stores a 14.5 per cent decrease occurred in the total number of men and women employees in the period covered in 1914, as compared with the same period in 1913. All occupations save the cashiers shared this decrease, although not equally. The workroom employees engaged in altering garments, making and trimming hats, or sewing pennants and upholstery goods sustained the largest decrease, namely, 35 per cent. This reduction in numbers was brought about by a falling off in the amount of altering ordered on ready-made garments. An agreement had been made in 1914 by the department and specialty stores to charge for alterations. The result was that many women purchasers of garments who used to have the necessary alterations made in the store did the work themselves in 1914. Among the bundle-wrapper and messenger group a 17 per cent decrease in numbers employed occurred. This, too, was occasioned largely by readjustments in some stores. Reorganization of the messenger service in 1914, where a lack of system had theretofore prevailed, necessarily resulted in a material reduction in the force of messengers. Doing away with the restaurant and soda fountain in one store in 1914 accounted for the decrease of the female labor force in the miscellaneous group. The numbers of men and women employed in selling were reduced approximately 13 per cent. The office force remained almost stationary, while the floor and tube cashiers increased very slightly.

These losses of employment occurred among men as well as among women. Salesmen decreased less rapidly than saleswomen, tailors less rapidly than tailoresses, boy messengers less rapidly than girl messengers. As long as men could not hold their own positions in these occupations, they could not have taken the places vacated by women to any extent. In the office only did the numbers of men increase while the numbers of women decreased. But Table 13 shows that the dismissed women were girls under 18 and subject only to the $6 a week determination. It is not probable that adult male labor was employed in occupations commanding such low rates. The secretaries in several stores confirmed this inference. Believing that the order for a 6 o'clock closing hour applied to all women employed in mercantile establishments,[1] they had replaced some competent women bookkeepers by male bookkeepers, so that the occasional nightwork required in obtaining balances might go on unhindered. Other experienced adult women were employed in less important office occupations, however, so that the number of experienced adult women in the office was the same in both years, even though the total number of women workers decreased. Evidently the increase in men and the decrease in girls under 18 who had been receiving $6 or more in 1913 in the office can not be associated with the minimum-wage determinations. The women buyers and department heads appear to have increased at the expense of men buyers and department heads. The group of miscellaneous occupations is not comparable for men and women, as the largest group of men included here are employed as drivers, warehouse and stock men, elevator attendants, and in other occupations where no women are employed. On the whole, therefore, little displacement of women by men seems to have occurred in these six large stores.

---

[1] No decision as to whether this closing hour applies to store employees not engaged in selling had been rendered by the State attorney at this time.

The decrease measured in the foregoing paragraphs was the decrease in the numbers of men and women whose names appeared on the pay rolls during each period covered. These numbers do not accurately measure the real decrease in the amount of work unless the change in the regularity of employment is also known. Because the purpose of this study was to ascertain the changes, since the wage determinations, in women's status, the regularity of men's employment was not obtained. The nominal hours in five of these six establishments changed in 1914, thus making it impossible to obtain the relative regularity of employment merely by a comparison of the hours actually worked in each year. The method used to measure the difference in regularity in this study was to compare the number of women and girls who, if employed full time in each period, would have worked the same number of hours as was worked by the actual number of women and girls employed. Table 13 shows that the decrease in the number of possible full-time women in this group of stores was 13.3 per cent, as compared with a 17.6 per cent decrease in actual numbers. This decrease in full-time women in the six Portland stores almost exactly corresponds with the 13.2 per cent decrease in women's sales. Among the saleswomen the real decrease in employment was 8.9 per cent, a decrease considerably less than the decrease in their sales. Obviously the nonselling female force decreased much more rapidly. The foregoing paragraphs (p. 38) describing the readjustments in the alteration rooms, the messenger service, and the miscellaneous occupations, explain this result.

The Oregon Industrial Welfare Commission, in its wage determinations, classified female employees into girls under 18 years, adult inexperienced women 18 years of age and over with experience of not more than one year in an occupation, and adult experienced women 18 years of age and over with more than a year of experience in an occupation. Of the total number of female employees included in the investigation, 1,632 in 1913 and 1,345 in 1914, there remained 152 in 1913 and 59 in 1914, for whom, as has been stated, statistical information as to age and experience was unavailable. There was reasonably reliable information, however, as to the probable age and

TABLE 16.—ACTUAL NUMBER OF WOMEN AND GIRLS RECEIVING CLASSIFIED WEEKLY PER CENT OF INCREASE OR DECREASE AFTER DETERMINATIONS, FOR SPECIFIED DRY GOODS, AND 5 AND 10 CENT STORES.

Occupation.	Women whose weekly rates of pay were within each classified amount.										
	Under $5	$5 to $5.99	$6	$6.01 to $6.99	$7 to $7.99	$8 to $8.49	$8.50 to $9.22	$9.23 and $9.25	$9.26 to $9.99	$10 to $10.49	$10.50 to $10.99
Saleswomen:											
Before determinations	64	40	39	26	24	145	43	83	6	47	17
After determinations.	1	......	68	21	33	38	8	175	21	64	15
Increase (+) or decrease (−)—											
Number	− 63	− 40	+ 29	− 5	+ 9	− 107	− 35	+ 92	+ 15	+ 17	− 2
Per cent	− 98.4	−100.0	+74.4	− 19.2	+ 37.5	− 73.8	− 81.4	+110.8	+250.0	+ 36.2	− 11.8
Workroom help:											
Before determinations	......	1	9	6	5	26	23	32	3	36	3
After determinations.	......	......	3	......	......	6	1	54	3	17	2
Increase (+) or decrease (−)—											
Number	......	− 1	− 6	− 6	− 5	− 20	− 22	+ 22	......	− 19	− 1
Per cent	......	−100.0	−66.7	−100.0	−100.0	− 76.9	− 95.7	+ 68.8	......	− 52.8	− 33.3
Office help:											
Before determinations	......	2	38	21	7	35	10	15	3	15	3
After determinations.	1	......	32	18	7	10	2	51	2	16	3
Increase (+) or decrease (−)—											
Number	+ 1	− 2	− 6	− 3	......	− 25	− 8	+ 36	− 1	+ 1	......
Per cent	......	−100.0	−15.8	− 14.3	......	− 71.4	− 80.0	+240.0	− 33.3	+ 6.7	......
Cash girls, wrappers, errand girls, etc.:											
Before determinations	10	10	117	45	9	5	3	5	......	......	......
After determinations.	......	......	119	12	9	4	1	22	......	......	......
Increase (+) or decrease (−)—											
Number	− 10	− 10	+ 2	− 33	......	− 1	− 2	+ 17	......	......	......
Per cent	−100.0	−100.0	+ 1.7	− 73.3	......	− 20.0	− 66.7	+340.0	......	......	......
Cashiers:											
Before determinations	1	2	44	5	9	18	4	7	......	1	......
After determinations.	......	......	52	2	10	......	......	21	3	2	......
Increase (+) or decrease (−)—											
Number	− 1	− 2	+ 8	− 3	+ 1	− 18	− 4	+ 14	+ 3	+ 1	......
Per cent	−100.0	−100.0	+18.2	− 60.0	+ 11.1	−100.0	−100.0	+200.0	......	+100.0	......
Buyers, department heads:											
Before determinations	......	......	......	......	......	......	......	......	......	......	......
After determinations.	......	......	......	......	......	......	......	......	......	......	......
Increase (+) or decrease (−)—											
Number	......	......	......	......	......	......	......	......	......	......	......
Per cent	......	......	......	......	......	......	......	......	......	......	......
Miscellaneous: [1]											
Before determinations	10	3	3	15	2	11	1	5	2	4	1
After determinations.	1	......	2	......	2	6	1	16	......	5	......
Increase (+) or decrease (−)—											
Number	− 9	− 3	− 1	− 15	......	− 5	......	+ 11	− 2	+ 1	− 1
Per cent	− 90.0	−100.0	−33.3	−100.0	......	− 45.5	......	+220.0	−100.0	+ 25.0	−100.0
Total:											
Before determinations	85	[2] 57	250	118	56	[3] 238	84	147	14	103	24
After determinations.	3	......	[3] 270	[2] 52	61	64	13	[2] 338	29	104	20
Increase (+) or decrease (−)—											
Number	− 82	− 57	+ 20	− 66	+ 5	− 174	− 71	+ 191	+ 15	+ 1	− 4
Per cent	− 96.5	−100.0	+ 8.0	− 55.9	+ 8.9	− 73.1	− 84.5	+129.9	+107.1	+ 1.0	− 16.7

[1] Includes detectives, advertising department, matron, nurses, janitresses, waitresses, etc.
[2] 1 woman worked in 2 occupations.
[3] 2 women worked in 2 occupations.

definitely on this question of experience in both years can not be measured. Undoubtedly besides suffering a reduction in numbers in the occupations in which the girls under 18 have gained, the inexperienced adults have been less desired in the workroom than before. In the selling department, however, in spite of the decrease in actual numbers, the equivalent full-time women employed were increased.

The experienced women employed in these six stores decreased 9.4 per cent in full-time numbers. The biggest reduction occurred in the workroom force (27.5 per cent) and for reasons explained on page 38.

As has been shown by the foregoing table, a decrease of 11.7 per cent occurred in the number of full-time, experienced, adult saleswomen. Table 14, which follows, shows what increases or decreases in numbers occurred in each of the various selling departments. The possible full-time experienced adults decreased in all selling departments save in muslin underwear, ribbons, and bargains. Their number decreased most heavily in the crockery and silverware, and the corsets departments.

A detailed examination of the rates received, as shown in the above table, reveals not only that the proportion but the actual number getting over $9.25 but under $12 increased after the wage determinations, in spite of the 17.6 per cent decrease in the total female force.

The proportion of the total force getting $12 and over also increased, although the actual numbers decreased 12.7 per cent, or approximately five points less than the percentage of decrease in the total female force. As the biggest decrease in the latter group occurred among the high-salaried women in the alteration workroom, a branch of the department store but little affected by the minimum-wage determinations, this reduction may be directly associated with the lessened need for experienced fitters and sewers spoken of on page 38.

The average rates of pay increased in all departments save the workroom. Exclusive of the miscellaneous occupations, the greatest increase occurred among the saleswomen—a rise of $1.06. The bundle wrappers and messengers received an average increase of 20 cents, the cashiers 31 cents, while the office help gained an average of 17 cents in the rates of pay.

Table 17 indicates which of the selling departments were affected most by the minimum-wage rulings. Outside of the miscellaneous selling departments, where the saleswomen in the 5 and 10 cent stores are included, few saleswomen were paid less than $6 in 1913. An average rate of less than $9.25 per week was paid to girls employed at the bargain counters, in the notions, the handkerchiefs, veilings, and patterns, the neckwear, and the ribbon departments in the period studied in 1913. The jewelry, stationery, and art needlework, the laces, the crockery, and the leather-goods departments also had a number of experienced adult women getting less than $9.25 per week, although the average rate for all women in the several departments was in excess of this amount. The departments least affected were the cloak and suit, the millinery, the corsets, the gloves, and the yard goods departments. Average wage rates increased after the minimum-wage determinations went into effect in all selling departments save the yard goods, the drugs and groceries, the millinery, the hosiery and knit goods, and the corsets departments, where they decreased. The last three departments were the departments where the number of inexperienced adults had increased.

TABLE 17.—NUMBER AND PER CENT OF WOMEN AND GIRLS WHOSE WEEKLY RATES OF PAY BEFORE AND AFTER THE MINIMUM-WAGE DETERMINATIONS WERE UNDER, EQUAL TO, OR OVER THE MINIMUM RATES FIXED, FOR SPECIFIED SELLING DEPARTMENTS, AS SHOWN BY THE PAY ROLLS OF 6 PORTLAND DEPARTMENT, DRY-GOODS, AND 5 AND 10 CENT STORES.

[For girls under 18 and inexperienced adult women of 18 and over the minimum wage is $6; for adult women with more than 1 year of experience it is $9.25 in Portland.]

Selling departments.	Women whose weekly rates of pay were within each classified amount.										Total number.	Average rate of pay.
	Under $6		$6		Over $6 and under $9.23		$9.23 or $9.25		Over $9.25			
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		
Cloak, suit, and waist:												
Before determinations	......	......	1	1.3	10	13.3	6	8.0	58	77.3	75	$13.83
After determinations	......	......	2	2.5	4	5.0	8	10.0	66	82.5	80	14.05
Jewelry, stationery, books, pictures, music, art needlework:												
Before determinations	......	......	8	11.6	32	46.4	9	13.0	20	29.0	69	9.26
After determinations	......	......	1	1.9	9	17.3	21	40.4	21	40.4	52	10.46
Millinery:												
Before determinations	......	......	4	6.8	6	10.2	4	6.8	45	76.3	59	12.02
After determinations	1	1.7	1	1.7	9	15.0	8	13.3	41	68.3	60	11.50
Muslin underwear:												
Before determinations	1	2.0	3	5.9	17	33.3	10	19.6	20	39.2	51	9.64
After determinations	......	......	1	2.4	1	2.4	13	31.7	26	63.4	41	10.41
Laces, embroideries, and trimmings:												
Before determinations	......	......	3	7.1	20	47.6	2	4.8	17	40.5	42	9.67
After determinations	......	......	2	6.5	4	12.9	8	25.8	17	54.8	31	10.84
Ribbons:												
Before determinations	......	......	......	......	20	52.6	11	28.9	7	18.4	38	9.04
After determinations	......	......	1	2.6	5	12.8	14	35.9	19	48.7	39	9.47
Hosiery and knit underwear:												
Before determinations	2	5.9	......	......	9	26.5	9	26.5	14	41.2	34	9.86
After determinations	......	......	3	7.9	5	13.2	10	26.3	20	52.6	38	9.93
Notions:												
Before determinations	......	......	4	12.1	24	72.7	2	6.1	3	9.1	33	8.11
After determinations	......	......	4	14.8	13	48.1	5	18.5	5	18.5	27	8.38
Drugs, groceries, and candy:												
Before determinations	......	......	1	3.1	15	46.9	5	15.6	11	34.4	32	9.95
After determinations	......	......	......	......	6	22.2	12	44.4	9	33.3	27	9.77
Yard goods:												
Before determinations	......	......	......	......	11	35.5	3	9.7	17	54.8	31	11.90
After determinations	......	......	......	......	11	22.0	22	44.0	17	34.0	50	10.86
Bargains:												
Before determinations	......	......	5	17.2	22	75.9	1	3.4	1	3.4	29	7.55
After determinations	......	......	8	26.7	7	23.3	9	30.0	6	20.0	30	8.23
Crockery, silverware, statuary:												
Before determinations	......	......	3	12.0	13	52.0	1	4.0	8	32.0	25	9.29
After determinations	......	......	2	13.3	3	20.0	3	20.0	7	46.7	15	10.61
Gloves:												
Before determinations	......	......	1	4.5	5	22.7	4	18.2	12	54.5	22	10.93
After determinations	......	......	3	13.0	......	......	4	17.4	16	69.6	23	11.00
Corsets:												
Before determinations	......	......	2	10.5	1	5.3	2	10.5	14	73.7	19	13.73
After determinations	......	......	......	......	4	25.0	2	12.5	10	62.5	16	11.59
Handkerchiefs, veilings, and patterns:												
Before determinations	4	22.2	1	5.6	8	44.4	1	5.6	4	22.2	18	8.47
After determinations	......	......	3	15.0	5	25.0	8	40.0	4	20.0	20	9.44
Neckwear:												
Before determinations	1	6.7	......	......	9	60.0	3	20.0	2	13.3	15	8.75
After determinations	......	......	......	......	5	27.8	6	33.3	7	38.9	18	9.82
Leather goods and shoes:												
Before determinations	......	......	......	......	7	53.8	......	......	6	46.2	13	10.87
After determinations	......	......	......	......	2	16.7	2	16.7	8	66.7	12	11.75
Miscellaneous:[1]												
Before determinations	98	67.1	3	2.1	18	12.3	10	6.8	17	11.6	146	6.31
After determinations	......	......	41	44.1	11	11.8	26	28.0	15	16.1	93	8.12
Total:												
Before determinations	[2]104	14.1	39	5.3	[3]238	32.2	83	11.2	[4]274	37.1	[5]738	9.63
After determinations	1	.2	[6]68	10.4	[6]100	15.3	[7]175	26.8	[8]310	47.4	[9]654	10.69

---

[1] Includes men's furnishing goods, boys' clothing, infants' and children's wear, umbrellas, toys, cameras, phonographs, sewing machines, hair goods, furs, flags, and 5 and 10 cent departments.

[2] 1 woman worked in 3 departments.

[3] 9 women worked in 2 departments.

[4] 2 women worked in 2 departments.

[5] 11 women worked in 2 departments, and 1 woman worked in 3 departments.

[6] 4 women worked in 2 departments.

[7] 6 women worked in 2 departments.

[8] 2 women worked in 2 departments, and 1 woman worked in 3 departments.

[9] 16 women worked in 2 departments, and 1 woman worked in 3 departments.

AVERAGE WEEKLY EARNINGS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

The average weekly earnings of all women in the six department, dry-goods, and 5 and 10 cent stores increased 10 per cent, or from $7.89 to $8.67 per week after the minimum-wage determinations, according to Table 18 below. This increase occurred almost entirely in the average weekly wages; the amount paid in premiums, commonly known as P. M.'s, averaged the same in both years, and the commission system, which had not been in use in 1913, netted the women on an average of less than 1 cent a week. This percentage of increase in earnings was approximately twice as great as the increase occurring in the rates of pay. Its relation to rates differed, however, in the several occupations. Among the saleswomen the average weekly earnings increased from $7.73 to $8.49, or 9.8 per cent; their rates had increased 11 per cent. In the workroom an 11 per cent increase occurred in the earnings. The numbers and the rates of pay had decreased in this department, but the women who were retained worked more steadily, and therefore earned more than in 1913. In the office and among the bundle-wrapper group the rise in earnings was greater than the rise in weekly rates of pay. For the cashiers, however, the weekly earnings decreased 1 per cent in spite of the 4 per cent increase in rates; this slight fall in earnings was accompanied by a 14 per cent decrease in hours, a decrease due partly to the shortening of the normal hours and partly to the decreased regularity of employment.

TABLE 18.—AVERAGE WEEKLY EARNINGS AND HOURS OF LABOR OF WOMEN AND GIRLS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, WITH PER CENT OF INCREASE OR DECREASE AFTER DETERMINATIONS, FOR SPECIFIED OCCUPATIONS, AS SHOWN BY THE PAY ROLLS OF 6 PORTLAND DEPARTMENT, DRY-GOODS, AND 5 AND 10 CENT STORES.

Occupation.	Number of women.	Average weekly wages.	Average weekly P. M.'s.	Average weekly commissions.	Total average weekly earnings.	Average weekly hours.
Saleswomen:						
Before minimum-wage determinations	738	$7.68	$0.05		$7.73	38.19
After minimum-wage determinations	[1] 634	$8.44	$0.04	$0.01	$8.49	38.88
Per cent increase (+) or decrease (−)		+ 9.9			+ 9.8	+ 1.8
Workroom help:						
Before minimum-wage determinations	279	$9.18			$9.18	39.92
After minimum-wage determinations	175	$10.20			$10.20	42.43
Per cent increase (+) or decrease (−)		+11.1			+11.1	+ 6.3
Office help:						
Before minimum-wage determinations	217	$8.77	(2)		$8.77	43.36
After minimum-wage determinations	204	$9.18	(2)		$9.18	42.78
Per cent increase (+) or decrease (−)		+ 4.7			+ 4.7	− 1.3
Cash girls, wrappers, errand girls, etc.:						
Before minimum-wage determinations	210	$4.93	(2)		$4.93	37.09
After minimum-wage determinations	169	$5.20	(2)		$5.20	38.31
Per cent increase (+) or decrease (−)		+ 5.5			+ 5.5	+ 3.3
Cashiers:						
Before minimum-wage determinations	100	$6.68	$0.01		$6.69	46.69
After minimum-wage determinations	101	$6.61	$0.01		$6.62	40.06
Per cent increase (+) or decrease (−)		− 1.0			− 1.0	−14.2
Buyers, department heads, floorwalkers:						
Before minimum-wage determinations	17	$28.01			$28.01	47.29
After minimum-wage determinations	24	$27.23			$27.23	47.86
Per cent increase (+) or decrease (−)		− 2.8			− 2.8	+ 1.2
Miscellaneous: [3]						
Before minimum-wage determinations	74	$7.02			$7.02	35.32
After minimum-wage determinations	46	$9.25			$9.25	38.88
Per cent increase (+) or decrease (−)		+31.8			+31.8	+10.1
Total:						
Before minimum-wage determinations	[4] 1,632	$7.87	$0.02		$7.89	39.59
After minimum-wage determinations	[5] 1,345	$8.65	$0.02	(2)	$8.67	40.34
Per cent increase (+) or decrease (−)		+ 9.9			+10.0	+ 1.9

[1] Not including 20 saleswomen whose regular employment began with the opening of a new department on the last day of the period covered by the investigation.

[2] Less than one-half cent.

[3] Includes detectives, advertising department, matron, nurses, janitresses, waitresses, etc.

[4] 3 women worked in 2 occupations.

[5] 8 women worked in 2 occupations. Not including 20 saleswomen whose regular employment began with the opening of a new department on the last day of the period covered by the investigation.

The relative difference between the earnings and the rates of pay in the six Portland stores under discussion was greatest among the group of cash girls, wrappers, etc., in both periods studied. The disparity for the saleswomen was a heavy one in both years, approximating 20 per cent. What had amounted to a 21 per cent difference between rates and earnings for the workroom help in 1913 resolved itself into an almost negligible difference in 1914; the average rate in 1914 was $10.25, the average earnings were $10.20. Among the office help and cashiers the disparity in rates and earnings varied from 11 to about 16 per cent in both periods. How much of this difference between rates and earnings is due to the women who entered an establishment during the two months for which records were taken having been employed in other stores before or not employed at all, and how much is due to time lost from industrial or

AVERAGE WEEKLY EARNINGS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

The average weekly earnings of all women in the six department, dry-goods, and 5 and 10 cent stores increased 10 per cent, or from $7.89 to $8.67 per week after the minimum-wage determinations, according to Table 18 below. This increase occurred almost entirely in the average weekly wages; the amount paid in premiums, commonly known as P. M.'s, averaged the same in both years, and the commission system, which had not been in use in 1913, netted the women on an average of less than 1 cent a week. This percentage of increase in earnings was approximately twice as great as the increase occurring in the rates of pay. Its relation to rates differed, however, in the several occupations. Among the saleswomen the average weekly earnings increased from $7.73 to $8.49, or 9.8 per cent; their rates had increased 11 per cent. In the workroom an 11 per cent increase occurred in the earnings. The numbers and the rates of pay had decreased in this department, but the women who were retained worked more steadily, and therefore earned more than in 1913. In the office and among the bundle-wrapper group the rise in earnings was greater than the rise in weekly rates of pay. For the cashiers, however, the weekly earnings decreased 1 per cent in spite of the 4 per cent increase in rates; this slight fall in earnings was accompanied by a 14 per cent decrease in hours, a decrease due partly to the shortening of the normal hours and partly to the decreased regularity of employment.

TABLE 18.—AVERAGE WEEKLY EARNINGS AND HOURS OF LABOR OF WOMEN AND GIRLS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, WITH PER CENT OF INCREASE OR DECREASE AFTER DETERMINATIONS, FOR SPECIFIED OCCUPATIONS, AS SHOWN BY THE PAY ROLLS OF 6 PORTLAND DEPARTMENT, DRY-GOODS, AND 5 AND 10 CENT STORES.

Occupation.	Number of women.	Average weekly wages.	Average weekly P. M.'s.	Average weekly commissions.	Total average weekly earnings.	Average weekly hours.
Saleswomen:						
Before minimum-wage determinations	738	$7.68	$0.05		$7.73	38.19
After minimum-wage determinations	[1] 634	$8.44	$0.04	$0.01	$8.49	38.88
Per cent increase (+) or decrease (−)		+ 9.9			+ 9.8	+ 1.8
Workroom help:						
Before minimum-wage determinations	279	$9.18			$9.18	39.92
After minimum-wage determinations	175	$10.20			$10.20	42.43
Per cent increase (+) or decrease (−)		+11.1			+11.1	+ 6.3
ffice help:						
Before minimum-wage determinations	217	$8.77	(2)		$8.77	43.36
After minimum-wage determinations	204	$9.18	(2)		$9.18	42.78
Per cent increase (+) or decrease (−)		+ 4.7			+ 4.7	− 1.3
ash girls, wrappers, errand girls, etc.:						
Before minimum-wage determinations	210	$4.93	(2)		$4.93	37.09
After minimum-wage determinations	169	$5.20	(2)		$5.20	38.31
Per cent increase (+) or decrease (−)		+ 5.5			+ 5.5	+ 3.3
ashiers:						
Before minimum-wage determinations	100	$6.68	$0.01		$6.69	46.69
After minimum-wage determinations	101	$6.61	$0.01		$6.62	40.06
Per cent increase (+) or decrease (−)		− 1.0			− 1.0	−14.2
uyers, department heads, floorwalkers:						
Before minimum-wage determinations	17	$28.01			$28.01	47.29
After minimum-wage determinations	24	$27.23			$27.23	47.86
Per cent increase (+) or decrease (−)		− 2.8			− 2.8	+ 1.2
iscellaneous: [3]						
Before minimum-wage determinations	74	$7.02			$7.02	35.32
After minimum-wage determinations	46	$9.25			$9.25	38.88
Per cent increase (+) or decrease (−)		+31.8			+31.8	+10.1
Total:						
Before minimum-wage determinations	[4] 1,632	$7.87	$0.02		$7.89	39.59
After minimum-wage determinations	[5] 1,345	$8.65	$0.02	(2)	$8.67	40.34
Per cent increase (+) or decrease (−)		+ 9.9			+10.0	+ 1.9

---

ot including 20 saleswomen whose regular employment began with the opening of a new department e last day of the period covered by the investigation.

ss than one-half cent.

cludes detectives, advertising department, matron, nurses, janitresses, waitresses, etc.

women worked in 2 occupations.

women worked in 2 occupations. Not including 20 saleswomen whose regular employment began with ning of a new department on the last day of the period covered by the investigation.

he relative difference between the earnings and the rates of pay he six Portland stores under discussion was greatest among group of cash girls, wrappers, etc., in both periods studied. disparity for the saleswomen was a heavy one in both years, ximating 20 per cent. What had amounted to a 21 per cent ence between rates and earnings for the workroom help in resolved itself into an almost negligible difference in 1914; the ge rate in 1914 was $10.25, the average earnings were $10.20. g the office help and cashiers the disparity in rates and earnings l from 11 to about 16 per cent in both periods. How much of ifference between rates and earnings is due to the women who d an establishment during the two months for which records taken having been employed in other stores before or not yed at al ch is due to time lost from industrial or personal reasons, are not definitely known. In a period of depression, where the policy, as has been seen, was to reduce the force, a material number of new employees would not be taken on. This inference is confirmed by an inspection of pay rolls covering 705 women and giving information on this subject. Of the 344 who had some unemployment during the period covered in 1914, 249, or 72.4 per cent, were definitely known to have been absent, losing an average of 7⅜ days. The scattered days—averaging 6½ days—lost by 80, or 23.3 per cent, would strongly point to the same cause, although definite information concerning their absence was not obtained. In any case the amount of time lost was less than that lost by women known to be absent, and if the 80 were excluded, average hours of the remaining 625 would be raised slightly more than 1 per cent. Only 15, or 4.3 per cent, may have been taken on for the first time in the last half of the pay-roll period, as no information as to the cause of their nonappearance in the first half of the period was available. The 95 women concerning whose absences there is no definite information affect the average hours of the 705 by just 3 per cent.

LABOR COST BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

If the same women who were employed in the period studied in 1913 had been retained in 1914, and if these women had worked full time, the minimum-wage determinations would have increased the female pay roll of these six stores by approximately 4 per cent. Regardless of minimum-wage determinations, a pay roll in a large establishment does not remain the same from year to year; the labor force fluctuates with business conditions and is further affected by influences operating among individual employees. The periods studied in Portland were no exception to the rule. As has been shown, the force of women employees was materially lessened in 1914, the proportion of minors, inexperienced adult, and experienced adult women was changed and the work was not steady. It is not, therefore, possible to measure the extent to which the increase in wage rates enforced by the minimum-wage determinations, entirely apart from other causes, affected the labor cost.

A comparison of the actual amount of the average weekly sales and of the average weekly wage payments before and after the minimum-wage determinations, covering both the selling and nonselling forces of the six Portland department, dry-goods, and 5 and 10 cent stores, is made in Table 19, which follows.

TABLE 19.—PER CENT WHICH AVERAGE WEEKLY WAGE PAYMENTS TO SELLING AND TO NONSELLING FORCES WERE OF AVERAGE WEEKLY SALES BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS IN 6 PORTLAND DEPARTMENT, DRY-GOODS, AND 5 AND 10 CENT STORES.

[In each case the sales and wage payments are shown to the nearest dollar, and for this reason the totals are not always exactly equal to the sum of the items.]

Occupation.	Females.				Males.			Total.		
	Average weekly wage payments.	Average weekly sales.	Per cent wage pay-m'ts are of sales.	Average weekly hours of labor.	Average weekly wage payments.	Average weekly sales.	Per cent wage pay-m'ts are of sales.	Average weekly wage payments.	Average weekly sales.	Per cent wage pay-m'ts are of sales.
Selling:										
Before determinations	[1] $5,712	[2] $107,251	5.33	28,184	$3,330	$68,088	4.89	$9,042	$175,339	5.16
After determinations.	[1] $5,413	[2] $93,077	5.82	24,650	$2,968	$65,279	4.55	$8,380	$158,356	5.29
Per cent increase (+) or decrease (−).....	−5.3	−13.2	......	−12.5	−10.9	−4.1	......	−7.3	−9.7	......
Nonselling:										
Before determinations	$7,165	....	......	36,427	[1] $10,958	....	......	$18,123	....	......
After determinations.	$6,285	....	......	29,607	[1] $10,556	....	......	$16,841	....	......
Per cent increase (+) or decrease (−).....	−12.3	....	......	−18.7	−3.7	....	......	−7.1	....	......
Total:										
Before determinations.........	[1] $12,878	[2] $107,251	12.01	64,611	[1] $14,288	[2] $68,088	20.98	[1] $27,165	[2] $175,339	15.49
After determinations...........	[1] $11,698	[2] $93,077	12.57	54,257	[1] $13,524	[2] $65,279	20.72	[1] $25,221	[2] $158,356	15.92
Per cent increase (+) or decrease (−)............	−9.2	−13.2	......	−16.0	−5.3	−4.1	......	−7.2	−9.7	......

[1] Includes wage payments for extra help.

[2] Includes sales made by extra help.

What really happened, as shown in the above table, was that instead of increasing, the wage payments to both selling and nonselling women combined decreased 9.2 per cent. This decrease in wage expenditures was not equal to the decrease in sales made by women, the result being that their average weekly wage payments per dollar of sales after the determinations amounted to 12.57 cents, as compared with 12.01 cents before the determinations, an increase of 5.6 mills. As a saving was was made in the male-labor cost, the net increase on a dollar of sales for all employees was 4.3 mills.

Among women the largest saving of wages was effected in the nonselling force. The wage payments to saleswomen decreased 5.3 per cent, to nonselling women 12.3 per cent. The hours of labor of females decreased by 12.5 per cent in the first and by 18.7 per cent in the second group. Among men the reverse was true. The wage payments to salesmen decreased 10.9 per cent, while that to the nonselling force decreased but 3.7 per cent.

Considering only the selling department, the female selling cost was 5.33 per cent, the male 4.89 per cent in 1913. One increased to 5.82 per cent while the other decreased to 4.55 per cent in 1914. In other words, the female selling cost increased 4.9 mills per dollar of sales while the male selling cost decreased 3.4 mills per dollar of

AVERAGE WEEKLY EARNINGS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

The average weekly earnings of all women in the six department, dry-goods, and 5 and 10 cent stores increased 10 per cent, or from $7.89 to $8.67 per week after the minimum-wage determinations, according to Table 18 below. This increase occurred almost entirely in the average weekly wages; the amount paid in premiums, commonly known as P. M.'s, averaged the same in both years, and the commission system, which had not been in use in 1913, netted the women on an average of less than 1 cent a week. This percentage of increase in earnings was approximately twice as great as the increase occurring in the rates of pay. Its relation to rates differed, however, in the several occupations. Among the saleswomen the average weekly earnings increased from $7.73 to $8.49, or 9.8 per cent; their rates had increased 11 per cent. In the workroom an 11 per cent increase occurred in the earnings. The numbers and the rates of pay had decreased in this department, but the women who were retained worked more steadily, and therefore earned more than in 1913. In the office and among the bundle-wrapper group the rise in earnings was greater than the rise in weekly rates of pay. For the cashiers, however, the weekly earnings decreased 1 per cent in spite of the 4 per cent increase in rates; this slight fall in earnings was accompanied by a 14 per cent decrease in hours, a decrease due partly to the shortening of the normal hours and partly to the decreased regularity of employment.

TABLE 18.—AVERAGE WEEKLY EARNINGS AND HOURS OF LABOR OF WOMEN AND GIRLS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, WITH PER CENT OF INCREASE OR DECREASE AFTER DETERMINATIONS, FOR SPECIFIED OCCUPATIONS, AS SHOWN BY THE PAY ROLLS OF 6 PORTLAND DEPARTMENT, DRY-GOODS, AND 5 AND 10 CENT STORES.

Occupation.	Number of women.	Average weekly wages.	Average weekly P. M.'s.	Average weekly commissions.	Total average weekly earnings.	Average weekly hours.
Saleswomen:						
Before minimum-wage determinations	738	$7.68	$0.05	....	$7.73	38.19
After minimum-wage determinations	[1] 634	$8.44	$0.04	$0.01	$8.49	38.88
Per cent increase (+) or decrease (−)	....	+ 9.9	....	....	+ 9.8	+ 1.8
Workroom help:						
Before minimum-wage determinations	279	$9.18	....	....	$9.18	39.92
After minimum-wage determinations	175	$10.20	....	....	$10.20	42.43
Per cent increase (+) or decrease (−)	....	+11.1	....	....	+11.1	+ 6.3
Office help:						
Before minimum-wage determinations	217	$8.77	(2)	....	$8.77	43.36
After minimum-wage determinations	204	$9.18	(2)	....	$9.18	42.78
Per cent increase (+) or decrease (−)	....	+ 4.7	....	....	+ 4.7	− 1.3
Cash girls, wrappers, errand girls, etc.:						
Before minimum-wage determinations	210	$4.93	(2)	....	$4.93	37.09
After minimum-wage determinations	169	$5.20	(2)	....	$5.20	38.31
Per cent increase (+) or decrease (−)	....	+ 5.5	....	....	+ 5.5	+ 3.3
Cashiers:						
Before minimum-wage determinations	100	$6.68	$0.01	....	$6.69	46.69
After minimum-wage determinations	101	$6.61	$0.01	....	$6.62	40.06
Per cent increase (+) or decrease (−)	....	− 1.0	....	....	− 1.0	−14.2
Buyers, department heads, floorwalkers:						
Before minimum-wage determinations	17	$28.01	....	....	$28.01	47.29
After minimum-wage determinations	24	$27.23	....	....	$27.23	47.86
Per cent increase (+) or decrease (−)	....	− 2.8	....	....	− 2.8	+ 1.2
Miscellaneous: [3]						
Before minimum-wage determinations	74	$7.02	....	....	$7.02	35.32
After minimum-wage determinations	46	$9.25	....	....	$9.25	38.88
Per cent increase (+) or decrease (−)	....	+31.8	....	....	+31.8	+10.1
Total:						
Before minimum-wage determinations	[4] 1,632	$7.87	$0.02	....	$7.89	39.59
After minimum-wage determinations	[5] 1,345	$8.65	$0.02	(2)	$8.67	40.34
Per cent increase (+) or decrease (−)	....	+ 9.9	....	....	+10.0	+ 1.9

[1] Not including 20 saleswomen whose regular employment began with the opening of a new department on the last day of the period covered by the investigation.

[2] Less than one-half cent.

[3] Includes detectives, advertising department, matron, nurses, janitresses, waitresses, etc.

[4] 3 women worked in 2 occupations.

[5] 8 women worked in 2 occupations. Not including 20 saleswomen whose regular employment began with the opening of a new department on the last day of the period covered by the investigation.

The relative difference between the earnings and the rates of pay in the six Portland stores under discussion was greatest among the group of cash girls, wrappers, etc., in both periods studied. The disparity for the saleswomen was a heavy one in both years, approximating 20 per cent. What had amounted to a 21 per cent difference between rates and earnings for the workroom help in 1913 resolved itself into an almost negligible difference in 1914; the average rate in 1914 was $10.25, the average earnings were $10.20. Among the office help and cashiers the disparity in rates and earnings varied from 11 to about 16 per cent in both periods. How much of this difference between rates and earnings is due to the women who entered an establishment during the two months for which records were taken having been employed in other stores before or not employed at all, and how much is due to time lost from industrial or

These stores employed 167 women and girls in the first period and 181 women and girls in the second period, an increase accompanying a 15 per cent increase in sales made by women in this period. Over a third of the women were employed in selling and about one-half in altering garments and trimming hats. This increase in numbers was reflected in all departments save in the workroom. Here the charge for alterations instituted in 1914 in some stores caused an 11.5 per cent reduction in the actual number of women, a decrease amounting only to 1.5 per cent in the number of full-time workers. In 1913 the demands for altering were such that the regular force could not do the work, so extra women were called in for short periods from time to time. The work which 96 women were employed to do would have employed 66 full-time workers. In March and April, 1914, 85 were employed to do work that 65 full-time workers could have done. In the selling departments where an increase in numbers occurred in 1914, the reverse was true; that is, the work was more regular for the saleswomen in 1913 than for the increased numbers in 1914.

RATES OF PAY BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

With two exceptions, all women employed in the spring of 1913 were experienced workers. After the minimum-wage determinations three minors and four adult apprentices were employed. Because of this increase in the minors and apprentices the numbers getting $6 increased in 1914, as shown in Table 21. There were 20 experienced adult women receiving less than $9.25 before the minimum-wage determinations. The total weekly pay rolls had to be increased $7.75 to raise these women to the minimum prescribed by the commission. After the determinations there were still 17 experienced adult and 3 inexperienced adult women getting more than $6 but less than $9.25. Eight of these experienced women were receiving a flat rate of $8 per week with a 2 per cent commission on all sales, a commission netting earnings in excess of the minimum wage for such as worked full time. Whether such an arrangement is in accordance with the time-rate ruling of $9.25 per week remains to be determined. The nine other cases of unquestionable violations occurred in the workrooms and among the bundle wrappers, where new but experienced women were employed at $8 and $9 per week. A larger per cent received $9.25 after than before the minimum-wage determinations. The per cent of the force receiving more than $9.25 decreased. This decrease was not due to a cutting of wage rates of old employees—in a number of cases their rates advanced—but to the increase in numbers getting exactly $9.25 per week, a rate which it should be observed is considerably below the average rate received before the determinations. The average rate for all employees fell

57 cents, or from $12.68 to $12.11 per week. This decrease occurred in the comparatively high paid occupations. The cashiers and bundle wrappers gained an increase in wage rates.

TABLE 21.—NUMBER AND PER CENT OF WOMEN AND GIRLS WHOSE WEEKLY RATES OF PAY BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS WERE UNDER, EQUAL TO, OR OVER THE MINIMUM RATES FIXED, FOR SPECIFIED OCCUPATIONS, AS SHOWN BY THE PAY ROLLS OF 11 PORTLAND SPECIALTY STORES.

[For girls under 18 and inexperienced adult women of 18 and over the minimum wage is $6; for adult women with more than 1 year of experience it is $9.25 in Portland and $8.25 in other parts of the State.]

Occupation.	Women whose weekly rates of pay were within each classified amount.								Total number.	Average rate of pay per week.
	$6		Over $6 and under $9.23		$9.23 or $9.25		Over $9.25			
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		
Saleswomen:										
Before determinations			10	18.5	1	1.9	43	79.6	54	$13.70
After determinations	1	1.3	11	14.5	13	17.1	51	67.1	76	12.46
Workroom help:										
Before determinations			11	11.5			85	88.5	96	12.05
After determinations	2	2.4	8	9.4	3	3.5	72	84.7	85	11.61
Office help:										
Before determinations					1	8.3	11	91.7	12	14.61
After determinations					1	7.1	13	92 9	14	14.44
Cash girls, bundle wrappers, errand girls, etc.:										
Before determinations	1	33.3			2	66.7			3	8.15
After determinations	1	25.0	1	25.0	1	25.0	1	25.0	4	8.47
Cashiers:										
Before determinations					1	50.0	1	50.0	2	9.62
After determinations					1	25.0	3	75.0	4	9.91
Total:										
Before determinations	1	.6	21	12.6	5	3.0	140	83.8	167	12.68
After determinations	4	2.2	20	11.0	[1]18	9.9	[1]139	76.8	[2]181	12.11

[1] 1 woman worked in 2 occupations.

[2] 2 women worked in 2 occupations.

AVERAGE WEEKLY EARNINGS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

The increase or decrease in average weekly earnings after the determinations differs somewhat from the increase or decrease in wage rates. Table 22, which follows, permits a comparison of the increases or decreases in weekly earnings and hours.

TABLE 22.—AVERAGE WEEKLY EARNINGS AND HOURS OF LABOR OF WOMEN AND GIRLS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, WITH PER CENT OF INCREASE OR DECREASE AFTER DETERMINATIONS, FOR SPECIFIED OCCUPATIONS, AS SHOWN BY THE PAY ROLLS OF 11 PORTLAND SPECIALTY STORES.

Occupation.	Number of women.	Average weekly wages.	Average weekly P. M.'s.	Average weekly commissions.	Total average weekly earnings.	Average weekly hours.
Saleswomen:						
Before determinations	54	$11.59	$0.336	$0.738	$12.66	44.52
After determinations	76	$9.82	$0.136	$0.566	$10.52	36.28
Per cent increase (+) or decrease (−)		−15.3	−59.5	−23.3	−16.9	−18.5
Workroom help:						
Before determinations	96	$8.55			$8.55	37.01
After determinations	85	$9.16			$9.16	37.78
Per cent increase (+) or decrease (−)		+7.1			+7.1	+2.1
Office help:						
Before determinations	12	$13.04			$13.04	48.00
After determinations	14	$12.09			$12.09	41.93
Per cent increase (+) or decrease (−)		−7.3			−7.3	−12.6
Cash girls, wrappers, errand girls, etc.:						
Before determinations	3	$7.97			$7.97	54.12
After determinations	4	$8.10			$8.10	46.38
Per cent increase (+) or decrease (−)		+1.6			+1.6	−14.3
Cashiers:						
Before determinations	2	$9.62			$9.62	53.25
After determinations	4	$5.80			$5.80	29.21
Per cent increase (+) or decrease (−)		−39.7			−39.7	−45.1
Total:						
Before determinations	167	$9.85	$0.109	$0.239	$10.20	40.73
After determinations	[1] 181	$9.67	$0.057	$0.238	$9.96	37.89
Per cent increase (+) or decrease (−)		−1.8	−47.7	−0.4	−2.4	−7.0

[1] 2 women worked in 2 departments at different periods.

The average weekly earnings fell off 2.4 per cent after the minimum-wage determinations. Approximately 2 per cent of the decrease occurred in the flat wages, the rest in the P. M.'s and commissions earned by saleswomen. Only in the workroom and for the bundle-wrapper group did the earnings per week increase. The average earnings of salespeople were almost $2 lower than their average rate in 1914; in the workrooms the difference was $3.50 in 1913 and $2.45 the next year. In the first occupation this difference was on a par with the difference for saleswomen in the six department, dry-goods, and 5 and 10 cent stores. For the workroom there is a greater difference than was seen in the large department stores. The 18 experienced women workers who received the minimum rate of $9.25 per week averaged but $5.70[1] in the two months studied in 1914.

The nominal hours in 1913 ranged from 48 to 56½ per week. All the specialty stores had kept open on Saturday evenings. In 1914 most of the stores ran on a 48-hour schedule, although some reached the 50-hour limit. How markedly the actual hours worked differ from the nominal hours is seen in Table 22. The women employed in the workroom did not average 38 hours per week in either year. The hours for the saleswomen fell from 44½ to 36¼ per week, a decrease indicative of the decrease in regularity of employment.

---

[1] See Table 10, p. 28.

Only about 12 per cent of the women employees in the specialty stores was affected by the minimum-wage determinations. Two stores ignored the determinations for experienced adult women; others increased slightly the minors and adult apprentices; still others adopted the legal minimum for experienced adults as the beginning rate for experienced women in their stores in place of the somewhat higher rate formerly paid. As a whole, therefore, the minimum-wage determinations have not benefited these women.

PORTLAND NEIGHBORHOOD STORES.

EMPLOYMENT OF WOMEN BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

The small stores situated in the residential districts are not important in the discussion of the effect of the minimum-wage determinations on woman's status, for all told they employ but a handful of women. From the viewpoint of the employers, however, they are important; the wage paid to the single woman employee is as important an item in the expenditures of each of these small merchants as the wages paid to 300 women are to a department-store proprietor.

Sixteen of these stores were therefore included in this survey.[1] They employed 34 women in 1913 and only 20 in 1914. Five stores no longer employed women in 1914. One employer said he had dismissed the woman employed because she was not worth the legal minimum; two others because it was illegal to employ a woman after 6 p. m., and two others because of the decrease in their business. The seven neighborhood stores reporting sales show a decrease of 48 per cent in 1914 in sales made by women and 18 per cent in sales made by men. Almost all the merchants visited believed a part, at least, of this decrease had been caused by their attempt to close at 6 p. m., in compliance with the 6 p. m. closing regulations for women. These neighborhood-store merchants maintain that they do the bulk of their business after the down-town stores are closed and that they need to employ their women after 6 p. m., although they are willing to comply with the 8 hours and 20 minutes a day regulation.

Had no women been dropped from the rolls in 1914 the neighborhood stores would have had to increase their weekly pay roll by $13.37, or about 4 per cent, to meet the minimum-wage regulations. As the employment in these stores is regular and no deductions are made for tardiness, this per cent would probably represent the possible increase in wage payments to women. The wage payments in the seven stores, however, decreased 43 per cent, making an increase in the cost of female labor of 8 mills per dollar of sales. That these stores were not employing the cheapest of female labor is evidenced by the fact that the average rate of pay was $9.54 in 1913 and $10.28 in 1914. In addition to the flat rate, commissions and P. M.'s were given in some stores, so that the earnings of the neighborhood-store women averaged $9.66 before and $10.31 after the minimum-wage determinations. Attention should be called to the fact that only in these stores, of all the groups studied, were the earnings in excess of the rates of pay.

---

[1] Nine stores, employing 11 women and 6 men in 1913 and 8 women and 4 men in 1914, did not report their sales for either period studied.

SALEM STORES.

NUMBERS EMPLOYED BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

Until time should permit a study of the conditions surrounding retail-store employees in each city in Oregon, the industrial welfare commission made one set of wage determinations for all women and girls employed in mercantile establishments outside of Portland. For experienced women the determination was $8.25 per week, or $1 less per week than that for Portland. For girls under 18 and inexperienced adult women a single rate applied throughout the State, including Portland.

Salem, the second largest city in Oregon, with a population of approximately 14,000, was chosen as the place in which to study the effects of these State-wide determinations. All stores that had complete files, namely, three dry-goods, two specialty, and two 5 and 10 cent stores, were included. Records of the numbers of women employed, by age and experience, their rates, earnings, hours worked, and sales, together with the numbers of men and their earnings and sales, were obtained for March and April, 1913, and March and April, 1914.

The actual number of women employed in the seven Salem stores and their equivalent in full-time workers, classified by age and experience, before and after minimum-wage determinations, with the per cent of increase or decrease after the determinations, is shown in Table 23 below.

TABLE 23.—ACTUAL NUMBER OF WOMEN EMPLOYED AND THEIR EQUIVALENT IN FULL-TIME WORKERS, CLASSIFIED BY AGE AND EXPERIENCE, AND ACTUAL NUMBER OF MEN EMPLOYED BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, WITH PER CENT OF INCREASE OR DECREASE AFTER DETERMINATIONS, FOR SPECIFIED OCCUPATIONS, IN 7 SALEM DRY-GOODS, SPECIALTY, AND 5 AND 10 CENT STORES.

Occupation.	Total employees.			Total men.			Total women.		
	Before determinations.	After determinations.	Per cent increase (+) or decrease (−).	Before determinations.	After determinations.	Per cent increase (+) or decrease (−).	Before determinations.	After determinations.	Per cent increase (+) or decrease (−).
Saleswomen:									
Actual number	92	98	+ 6.5	22	21	− 4.5	70	77	+10.0
Equivalent full-time workers							62	67	+ 8.1
Workroom help:									
Actual number	17	10	−41.2				17	10	−41.2
Equivalent full-time workers							8	5	
Office help:									
Actual number	7	8		1	2		6	6	
Equivalent full-time workers							6	6	
Cashiers, cash girls, bundle wrappers, etc.:									
Actual number	7	6		3	3		4	3	
Equivalent full-time workers							4	3	
Buyers, floor-walkers, etc.:									
Actual number	8	8		8	8				
Total:									
Actual number	131	130	− .8	34	34		97	96	− 1.0
Equivalent full-time workers							80	81	+ 1.3

Occupation.	Classification of women employees.						
	Minors.		Adult inexperienced.		Adult experienced.		
	Before determinations.	After determinations.	Before determinations.	After determinations.	Before determinations.	After determinations.	Per cent increase (+) or decrease (−).
Saleswomen:							
Actual number	5	3	7	14	58	60	+ 3.4
Equivalent full-time workers	4	2	6	11	52	54	+ 3.8
Workroom help:							
Actual number					17	10	−41.2
Equivalent full-time workers					8	5	
Office help:							
Actual number	1		1		4	6	
Equivalent full-time workers	1		1		4	6	
Cashiers, cash girls, bundle wrappers, etc.:							
Actual number	1	1			3	2	
Equivalent full-time workers	1	1			3	2	
Buyers, floor walkers, etc.:							
Actual number							
Total:							
Actual number	7	4	8	14	82	78	− 4.9
Equivalent full-time workers	6	3	7	11	67	67	

The seven Salem stores employed 97 women and 34 men before the wage determinations. More than 70 per cent of the women were engaged in the selling departments; the remainder were distributed among the workroom, office, cashier, and bundle-wrapper positions. The numbers employed were practically the same after these determinations.

The female force was made up of 82 experienced women, 7 girls under 18 and 8 inexperienced adult women prior to the determinations in 1913. The first two groups suffered a reduction in actual numbers, while the inexperienced adult women increased in 1914. The reduction in experienced adult women did not, however, change the numbers of days' work these women did, for there were the same number of possible full-time workers, 67, in each year.

RATES OF PAY BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

The actual number of women and girls receiving certain classified weekly rates of pay before and after minimum-wage determinations, with the per cent of increase or decrease in each wage class after the determinations, is shown by the pay rolls of seven Salem stores, as presented in Table 24 below.

Prior to the minimum-wage determinations there were eight women and girls in the Salem stores receiving less than $6. Nineteen were receiving between $6 and $8.25. The $8.25 rate per week, the rate later fixed as the minimum for experienced adults, did not appear on the pay rolls of Salem stores in 1913. Seventy-one per cent of the women were being paid at a rate in excess of $8.25 in that year. As there were no violations in the Salem stores studied in March and April, 1914, any wage rate less than $6 was swept away and all experienced women received $8.25 or more. The numbers at $6 naturally increased; seven experienced and two inexperienced women were paid on the $8.25 basis. The number and per cent receiving over $8.25 remained practically the same.

TABLE 24.—ACTUAL NUMBER OF WOMEN AND GIRLS RECEIVING CLASSIFIED WEEKLY RATES OF PAY BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, WITH PER CENT OF INCREASE OR DECREASE AFTER DETERMINATIONS, FOR SPECIFIED OCCUPATIONS, AS SHOWN BY THE PAY ROLLS OF 7 SALEM DRY-GOODS, SPECIALTY, AND 5 AND 10 CENT STORES.

Occupation.	Women whose weekly rate of pay was within each classified amount.									Total number.	Average rate of pay.
	Under $6	$6	$6.01 to $8.24	$8.25	$8.26 to $8.99	$9 to $9.99	$10 to $10.99	$11 to $14.99	$15 and over.		
Saleswomen:											
Before determinations	8	1	16	......	10	9	12	9	5	70	$9.26
After determinations	......	11	6	8	12	13	13	7	7	77	$9.47
Number increase (+) or decrease (−)	−8	+10	−10	+8	+2	+4	+1	−2	+2	+7	+0.21
Workroom help:											
Before determinations	......	......	......	......	......	15	......	2	......	17	$9.30
After determinations	......	......	......	......	......	8	......	2	......	10	$9.51
Number increase (+) or decrease (−)	......	......	......	......	......	−7	......	......	......	−7	+0.21
Office help:											
Before determinations	......	......	2	......	......	4	......	......	......	6	$8.50
After determinations	......	......	......	1	......	4	1	......	......	6	$9.24
Number increase (+) or decrease (−)	......	......	−2	+1	......	......	+1	......	......	......	+0.74
Cashiers, cash girls, wrappers, etc.:											
Before determinations	......	......	1	......	......	2	......	1	......	4	$9.52
After determinations	......	......	......	......	1	1	......	1	......	3	$9.69
Number increase (+) or decrease (−)	......	......	−1	......	+1	−1	......	......	......	−1	+0.17
Total:											
Before determinations	8	1	19	......	10	30	12	12	5	97	$9.23
After determinations	......	11	6	9	13	26	14	10	7	96	$9.47
Number increase (+) or decrease (−)	−8	+10	−13	+9	+3	−4	+2	−2	+2	−1	+0.24
Per cent increase (+) or decrease (−)	−100	+1,000	−68.4	+100	+30	−13.3	+16.7	−16.7	+40	−1	+ 2.6

The average rate of pay for both saleswomen and workroom help was increased 21 cents, the office force received a 74 cent increase, and the cashiers, etc., received an increase of 17 cents, which raised the average for all employees from $9.23 to $9.47, or 24 cents per week. Table 24 shows that the largest group of employees in both years received from $9 to $11. It also indicates that a rise in rates occurred for some women receiving more than $8.25 per week.

AVERAGE WEEKLY EARNINGS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

In Salem, as in Portland, the average weekly earnings during the two months studied were materially less than the average rates of pay in both years. This is shown in Table 25, which follows:

TABLE 25.—AVERAGE WEEKLY EARNINGS AND HOURS OF LABOR OF WOMEN AND GIRLS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, WITH PER CENT OF INCREASE OR DECREASE AFTER DETERMINATIONS, FOR SPECIFIED OCCUPATIONS, AS SHOWN BY THE PAY ROLLS OF 7 SALEM DRY-GOODS, SPECIALTY, AND 5 AND 10 CENT STORES.

Occupation.	Number of women.	Average weekly wages.	Average weekly commissions.[1]	Total average weekly earnings.	Average weekly hours.
Saleswomen:					
Before determinations	70	$8.29	$0.02	$8.31	46.12
After determinations	77	$8.39	$0.03	$8.42	42.96
Per cent increase (+) or decrease (−)		+1.2	+50.0	+1.3	−6.9
Workroom help:					
Before determinations	17	$4.70		$4.70	25.58
After determinations	10	$5.50		$5.50	27.02
Per cent increase (+) or decrease (−)		+17.0		+17.0	+5.6
Office help:					
Before determinations	6	$8.18		$8.18	52.65
After determinations	6	$8.72		$8.72	49.16
Per cent increase (+) or decrease (−)		+6.6		+6.6	−6.6
Cashiers, cash girls, wrappers, errand girls, etc.:					
Before determinations	4	$8.15		$8.15	43.38
After determinations	3	$9.69		$9.69	48.50
Per cent increase (+) or decrease (−)		+18.9		+18.9	+11.8
Total:					
Before determinations	97	$7.65	$0.01	$7.66	42.81
After determinations	96	$8.15	$0.02	$8.17	41.86
Per cent increase (+) or decrease (−)		+6.5		+6.7	−2.2

[1] No P. M.'s received.

In 1913, Salem store women averaged $1.57 less in their earnings than in their rates of pay; in 1914 they earned $1.30 less per week than their average rate of pay. The greatest difference between earnings and rates of pay occurred among the workroom help. Before the minimum-wage determinations the $9.30 average rate brought in $4.70 in earnings; after the wage determinations with a rate averaging $9.51 the weekly earnings were $5.50. Table 25 shows that these women worked less than half-time in 1913 and only 55 per cent of full time in 1914. Their hours were only 25½ and 27 per week in each year as compared with nominal hours of 51½ and 48¾, respectively. The seven experienced girls who worked for the minimum rate of $8.25 each earned an average of $6.91 per week. Only two earned $8.25, or their full rate of pay.

D
R
5

tals

	Per cent wage payments are of sales.
17	12.39
80	11.77
.9	....
....	....
....	....
.....	....
7,417	16.7
8,080	15.8
+ 8.9	....

AVERAGE WEEKLY EARNINGS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

In Salem, as in Portland, the average weekly earnings during the two months studied were materially less than the average rates of pay in both years. This is shown in Table 25, which follows:

TABLE 25.—AVERAGE WEEKLY EARNINGS AND HOURS OF LABOR OF WOMEN AND GIRLS BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS, WITH PER CENT OF INCREASE OR DECREASE AFTER DETERMINATIONS, FOR SPECIFIED OCCUPATIONS, AS SHOWN BY THE PAY ROLLS OF 7 SALEM DRY-GOODS, SPECIALTY, AND 5 AND 10 CENT STORES.

Occupation.	Number of women.	Average weekly wages.	Average weekly commissions.[1]	Total average weekly earnings.	Average weekly hours.
Saleswomen:					
Before determinations	70	$8.29	$0.02	$8.31	46.12
After determinations	77	$8.39	$0.03	$8.42	42.96
Per cent increase (+) or decrease (−)	....	+1.2	+50.0	+1.3	−6.9
Workroom help:					
Before determinations	17	$4.70	....	$4.70	25.58
After determinations	10	$5.50	....	$5.50	27.02
Per cent increase (+) or decrease (−)	....	+17.0	....	+17.0	+5.6
Office help:					
Before determinations	6	$8.18	....	$8.18	52.65
After determinations	6	$8.72	....	$8.72	49.16
Per cent increase (+) or decrease (−)	....	+6.6	....	+6.6	−6.6
Cashiers, cash girls, wrappers, errand girls, etc.:					
Before determinations	4	$8.15	....	$8.15	43.38
After determinations	3	$9.69	....	$9.69	48.50
Per cent increase (+) or decrease (−)	....	+18.9	....	+18.9	+11.8
Total:					
Before determinations	97	$7.65	$0.01	$7.66	42.81
After determinations	96	$8.15	$0.02	$8.17	41.86
Per cent increase (+) or decrease (−)	....	+6.5	....	+6.7	−2.2

[1] No P. M.'s received.

In 1913, Salem store women averaged $1.57 less in their earnings than in their rates of pay; in 1914 they earned $1.30 less per week than their average rate of pay. The greatest difference between earnings and rates of pay occurred among the workroom help. Before the minimum-wage determinations the $9.30 average rate brought in $4.70 in earnings; after the wage determinations with a rate averaging $9.51 the weekly earnings were $5.50. Table 25 shows that these women worked less than half-time in 1913 and only 55 per cent of full time in 1914. Their hours were only 25½ and 27 per week in each year as compared with nominal hours of 51½ and 48¾, respectively. The seven experienced girls who worked for the minimum rate of $8.25 each earned an average of $6.91 per week. Only two earned $8.25, or their full rate of pay.

LABOR COST BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.

The relation of the wage payments, to the selling and to the nonselling forces, to the amount of weekly sales before and after the minimum-wage determinations in the seven Salem stores is shown in Table 26. The table gives the percentage which the average weekly wage payments were of the average weekly sales before and after the determinations.

If the identity of the female force in Salem stores had not changed and all women and girls employed had worked full time, the weekly pay roll would have been increased $25.21 per week, or 2.8 per cent; $11.50 of this would have been due to the $6 ruling for girls under 18 and inexperienced adult women, $13.71 to the $8.25 ruling for experienced adult women. The actual wage payment to women increased in excess of this; that is, 5.6 per cent. The 15.1 per cent increase in sales made by women brought about a decrease in female labor cost of 1.2 cents per dollar of sales. An increase in the cost of male labor, however, made the decrease in total labor cost 9 mills per dollar of sales.

TABLE 26.—PER CENT WHICH AVERAGE WEEKLY WAGE PAYMENTS TO SELLING AND TO NONSELLING FORCES WERE OF AVERAGE WEEKLY SALES BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS IN 7 SALEM DRY-GOODS, SPECIALTY, AND 5 AND 10 CENT STORES.

[In each case the sales and wage payments are shown to the nearest dollar, and for this reason the totals are not always exactly equal to the sum of the items.]

Occupation.	Females.				Males.			Total.		
	Average weekly wage payments.	Average weekly sales.	Per cent wage payments are of sales.	Average weekly hours of labor.	Average weekly wage payments.	Average weekly sales.	Per cent wage payments are of sales.	Average weekly wage payments.	Average weekly sales.	Per cent wage payments are of sales.
Selling:										
Before determinations	$582	$5,439	10.70	3,228	$337	$1,978	17.03	$919	$7,417	12.39
After determinations	$649	$6,258	10.36	3,308	$302	$1,822	16.59	$951	$8,080	11.77
Per cent increase (+) or decrease (−)	+11.5	+15.1	......	− 2.5	−10.2	− 7.9	......	+ 3.5	+ 8.9	......
Nonselling:										
Before determinations	$162	......	......	924	$158	......	......	$320	......	......
After determinations	$136	......	......	711	$192	......	......	$329	......	......
Per cent increase (+) or decrease (−)	−15.6	......	......	−23.1	+21.4	......	......	+ 2.8	......	......
Total:										
Before determinations	$743	$5,439	13.7	4,153	$495	$1,978	25.0	$1,238	$7,417	16.7
After determinations	$785	$6,258	12.5	4,019	$495	$1,822	27.1	$1,280	$8,080	15.8
Per cent increase (+) or decrease (−)	+ 5.6	+15.1	......	− 3.2	− 0.1	− 7.9	......	+ 3.3	+ 8.9	......

CHANGES IN RATES OF PAY, OCCUPATION, AND PLACE OF EMPLOYMENT SINCE MINIMUM-WAGE DETERMINATIONS, AS REPORTED BY WOMEN PERSONALLY INTERVIEWED.

The belief was very prevalent among store women that the minimum wage had wrought only harm to them as a whole. The experienced women contended that formerly they had gotten through the day without any hurry or strain. If it was necessary to work a few minutes overtime, they did so willingly. Now, they said, they are under constant pressure from their supervisors to work harder; they are told the sales of their departments must increase to make up for the extra amount the firm must pay in wages. With business declining, this was hardly a possibility. The result was that the women were very worried and the worry was intensified in November, 1914—the month they were visited—because of the fear that large numbers would be dismissed after the Christmas rush was over and the dull days of January confronted the employers. These women did not ask themselves to what extent the same conditions would have prevailed in a poor business year had there been no wage regulation. They knew there were wage and hour regulations and that some women had been benefited, but if they had not personally benefited and had only experienced the pressure from above and the fear of the future, their anxiety found vent in heated denunciation of the minimum wage as the visible cause of their jeopardy. As expressed by one assistant department head: "It's mighty fine for the young girls beginning now, but for us, who have worked our way up from the bottom to near the top, to have to see that the wherewithal is made to pay the younger girls a living wage, is making us pay a heavy price for the benefit of the next generation."

To test the validity of this prevailing hostility by discovering what changes or losses in employment individuals had experienced since the determinations became effective, and the reasons for these changes, 443 women were personally visited. Most of these women were or had been employed in the department, dry-goods, and 5 and 10 cent stores, 57 of them having been employed during the year in the department store to whose records the Bureau was refused access. The numbers constitute nearly 27 per cent of the number of women employed during March and April, 1914, in the stores from which records were secured, and over 20 per cent of the number employed in the scheduled stores and in the store refusing records. The data secured from the women cover a later period than that represented by the store records heretofore discussed, because it was desirable to reduce to a minimum the errors resulting from defective memory. The women were questioned as to the changes in place of employment, occupation, rate of pay, earnings, and hours of work which had taken place between September 1, 1913, a month before the first ruling took effect, and October 31, 1914, eight months after the last award was made. The personal data also include age and experience. The story told by the results is not a cross section of what happened among the store women, for in the attempt to visit women believed to have suffered from the wage determinations a larger number of low-paid women were interviewed than a strict representation of each group of occupations would have called for.

The number of women and girls in each occupation group in the stores scheduled and the number and per cent who were personally interviewed are shown in Table 27.

TABLE 27.—NUMBER AND PER CENT OF WOMEN AND GIRLS PERSONALLY INTERVIEWED AND FURNISHING INFORMATION IN REGARD TO AGE, EXPERIENCE, OCCUPATION, RATES OF PAY, ETC.

Occupation.	Number of women and girls in stores scheduled.	Women and girls personally interviewed.	
		Number.	Per cent of number in stores.
Portland:			
Saleswomen	727	223	30.67
Office help	221	61	27.60
Cashiers	105	52	49.52
Bundle wrappers, errand and stock girls	173	43	24.86
Workroom help	260	26	10.00
Miscellaneous, including buyers	70		
Total	[1] 1,546	405	26.20
Salem	96	38	39.58
Grand total	[1] 1,642	443	26.98

[1] Include 10 women working in 2 or more departments.

Three hundred and seventy-eight of the 443 women and girls scheduled had been employed in Oregon both before and after the minimum-wage determinations. Sixty-five had not been working in the State before the rulings took effect: some had been working in stores in other States; some had been unemployed, and others were just beginning their industrial career. Thirty-five women giving information were not employed when visited.

For 99 women who had made some change in place of employment since the minimum-wage determinations came into effect, the reasons assigned for the changes, as stated by the women in personal interviews, are given in Table 28.

TABLE 28.—REASONS GIVEN FOR CHANGES IN PLACE OF EMPLOYMENT BY WOMEN AND GIRLS PERSONALLY INTERVIEWED, WHO HAD MADE SOME CHANGE SINCE THE MINIMUM-WAGE DETERMINATIONS CAME INTO EFFECT.

Changes in place of employment.	Women giving specified reasons for change.						
	Dismissed, apprenticeship year ended.	Disagreement with employer.[1]	Better paying position.	Laid off, business dull.[2]	Personal reasons.	Not reported.	Total.
Retail store to retail store		8	7	14	17	2	48
Other employment to retail store		2	4	3	2	3	14
Retail store to other employment		2	1	2	5		10
Retail store to unemployment	6	8		4	15		33
Total	6	20	12	23	39	5	[3] 105
Per cent	5.7	19.1	11.4	21.9	37.1	4.8	100.0

[1] Includes being dismissed or leaving voluntarily because of disagreements.
[2] Includes seasonal work.
[3] 6 women made 2 changes during period and gave different reasons for each change, and each change has been counted.

Of the women who had made changes the largest number had left their places of employment for purely personal reasons; the next largest group had been laid off because business had been dull. The six who had finished their apprenticeship period in their respective occupations declared their employers said they could not pay them $9.25 a week, and that unless they could obtain a permit to work for less their services could not be utilized. As these girls showed no signs of physical defects,[1] permits were not granted them by the industrial welfare commission and they had been unable to obtain any work up to the time they were visited. Probably this completed apprenticeship played some part in the dismissal of girls who had just reached the time when they should have received $9.25, but who were told they were laid off because business was dull. Some of the disagreements over wages which resulted in a girl's leaving were due to her inability to obtain the legal minimum in her old position. Undoubtedly, from the employers' statements and the confirmation of girls who were dismissed, there were more thrown out of employment because of the completion of their apprenticeship than the number shown.

Changes made in occupation have gained in importance since the minimum-wage determinations because experience in an occupation is one of the controlling factors in fixing the minimum rate to which an employee is legally entitled. If an adult woman has been a stock girl for one year, she must be paid $9.25 a week if retained as a stock girl. If, however, she is put in the alteration workroom, she may be employed for any sum not less than $6 for another year. The law will permit her to make as many changes for as many years as there are occupations in the retail stores,[1] without making it necessary for her to receive the minimum wage for experienced adult women. Such frequent changes, however, would not be practicable. To what extent changes from occupation to occupation had been made since the minimum-wage determinations by women still employed in October, 1914, is shown in Table 29.

---

[1] At the time of this investigation permits to work for less than the minimum rate for experienced women in stores had been granted to 2 women not included in the number individually scheduled.

TABLE 29.—CHANGES IN OCCUPATION MADE SINCE THE MINIMUM-WAGE DETERMINATIONS CAME INTO EFFECT REPORTED BY THE PORTLAND WOMEN AND GIRLS PERSONALLY INTERVIEWED WHO WERE EMPLOYED IN OCTOBER, 1914.

Changes in occupation.	Number.	Per cent of total in present occupation.	Women employed in first occupation 1 year or more.		
			Number.	Number receiving increase in rate of pay after change.	Number receiving $9.23 or $9.25 per week after change.
Bundle wrapper, errand girl, or stock girl to—					
Saleswoman	11	5.2	9	6	1
Clerk	8	14.0	7	4	....
Cashier	4	8.5	4	3	1
Cashier to—					
Saleswoman	6	2.8	5	5	1
Clerk	4	7.0	3	1	....
Saleswoman to—					
Cashier	4	8.5	2	1	....
Other occupations	7	....	4	2	1
Other occupations to—					
Saleswoman	8	3.8	6	[1] 2	4
Cashier	5	10.6	3	2	....
Other changes	9	....	5	1	1
Total	[2] 66	16.7	48	27	[3] 9

[1] 2 others suffered a decrease.
[2] 3 women made 2 changes and each change has here been counted.
[3] Includes 2 women who received $9.23 or more prior to change in occupation.

According to this table one-sixth of the women scheduled who were employed in October, 1914, had suffered some change since the minimum-wage determinations came into effect. Of the 63, 48, or 76 per cent, had been employed in their former occupations for one year or more. With the change of occupation, more than half of the 48 received some increase in pay, but only 7 who had not been receiving $9.25 reached the $9.25 minimum. Twenty-one continued to work for the same rate of pay that they had received in their last occupations.

---

[1] The Oregon Industrial Welfare Commission has issued no order defining "occupations." The number of occupations in retail stores varies from one to over a dozen, depending upon the store organization.

As before stated, department-store men do not consider an ordinary bundle wrapper or a stock girl, whatever her experience, to be worth $9.25. To earn $9.25, in the judgment of the employer, she must be put at work requiring more skill. Twenty-three of the women making changes in occupation since the determinations had come from these less skilled occupations and gone into better positions. About a third began their new apprenticeship without a raise. Two-thirds got an increase in wage, two getting the minimum rate of $9.25. If the demands made upon the girl who runs errands or who only wraps bundles are so slight that adult women of normal development ought not to be so engaged, it is natural that these changes should be made. There are some women, however, who have an aversion for certain occupations and others who can not perform more skilled duties. The law will not permit a girl, unless defective, to stay in any occupation after she is 18 for more than one year at less than $9.25. The only basis used for determining her defectiveness is a physical one. Mental retardation occurring in apparently normal people is not taken into consideration. There probably were some women employed in Oregon stores not capable of doing more than errand-girl work. Under the present conditions they will not be retained more than their apprenticeship period.

To what extent women employed in stores have gone from one retail-store occupation to another is shown in Table 30. The table also shows the average years of experience in the present or last occupation and in other retail-store occupations:

TABLE 30.—AVERAGE YEARS OF EXPERIENCE IN PRESENT OCCUPATION AND IN OTHER RETAIL-STORE OCCUPATIONS OF WOMEN AND GIRLS PERSONALLY INTERVIEWED.

[In some cases persons have worked in more than 1 occupation before entering the present one, and so have been recorded in more than 1 column of the table. In such cases the total number reporting will not equal the sum of those having experience in 1 occupation only and those reported as having previous experience in 1 or more other occupations.]

Present occupation.	Experience as— Saleswoman. Number.	Experience as— Saleswoman. Average years of experience.	Experience as— Office help. Number.	Experience as— Office help. Average years of experience.	Experience as— Cashier. Number.	Experience as— Cashier. Average years of experience.	Experience as— Bundle wrapper, etc. Number.	Experience as— Bundle wrapper, etc. Average years of experience.	Experience as— Workroom help. Number.	Experience as— Workroom help. Average years of experience.	Number whose store experience was in 1 occupation only.	Total retail-store experience reported. Number.	Total retail-store experience reported. Average years of experience.
PORTLAND.													
Saleswomen	[1] 221	4.4	[2] 4	1.3	10	1.5	18	1.7	[2] 4	2.1	185	[1] 221	4.6
Office help	4	1.3	[3] 60	2.5	5	1.1	17	2.3	......	......	40	[3] 60	3.3
Cashiers	5	.9	4	.7	52	1.8	12	1.2	3	.7	30	52	2.3
Bundle wrappers, etc	3	3.2	1	.1	1	1.7	43	1.2	......	......	38	43	1.2
Workroom help	[3] 4	3.4	......	......	......	......	3	1.8	26	6.6	19	26	7.5
Total	[4] 237	4.2	[5] 69	2.3	68	1.7	93	1.5	[2] 33	5.5	312	[4] 402	4.0
SALEM.													
Miscellaneous	[2] 31	4.1	3	.8	1	1.5	......	......	[2] 4	8.4	34	38	4.3
Grand total	[6] 268	4.2	[5] 72	2.3	69	1.7	93	1.5	[5] 37	5.8	346	[4] 440	4.0

[1] Not including 3 women having less than 1 year's experience but definite amount not specified.
[2] Not including 1 woman, experience not reported.
[3] Not including 1 woman having less than 1 year's experience but definite amount not specified.
[4] Not including 3 women, experience not reported.
[5] Not including 2 women, experience not reported.
[6] Not including 4 women, experience not reported.

Approximately 22 per cent of the 402 Portland women and 11 per cent of the 38 Salem women who reported their retail-store experience had been employed in more than one occupation. More than half of these 94 women had had some experience as bundle wrapper, stock, or errand girl; 17 and 18 per cent, respectively, had gone from cashier and selling work to other occupations, and less than 10 per cent had gone from the office or workroom to other occupations. Seventy-nine per cent of the women reporting had had experience in but one retail-store occupation. Obviously it has not been customary for a woman to work her way from one occupation to another. Where it has been done the girls have gone principally from bundle-wrapper occupations to selling, office, or cashier positions.

The women in the workroom have had the longest experience in their present occupations in the stores, the saleswomen the second longest. The girls in the bundle-wrapper positions averaged a little over a year of experience. Table 31 shows how the ages of the women in the several occupations differed.

CHANGES IN RATES OF PAY, OCCUPATION, AND PLACE OF EMPLOYMENT SINCE MINIMUM-WAGE DETERMINATIONS, AS REPORTED BY WOMEN PERSONALLY INTERVIEWED.

The belief was very prevalent among store women that the minimum wage had wrought only harm to them as a whole. The experienced women contended that formerly they had gotten through the day without any hurry or strain. If it was necessary to work a few minutes overtime, they did so willingly. Now, they said, they are under constant pressure from their supervisors to work harder; they are told the sales of their departments must increase to make up for the extra amount the firm must pay in wages. With business declining, this was hardly a possibility. The result was that the women were very worried and the worry was intensified in November, 1914—the month they were visited—because of the fear that large numbers would be dismissed after the Christmas rush was over and the dull days of January confronted the employers. These women did not ask themselves to what extent the same conditions would have prevailed in a poor business year had there been no wage regulation. They knew there were wage and hour regulations and that some women had been benefited, but if they had not personally benefited and had only experienced the pressure from above and the fear of the future, their anxiety found vent in heated denunciation of the minimum wage as the visible cause of their jeopardy. As expressed by one assistant department head: "It's mighty fine for the young girls beginning now, but for us, who have worked our way up from the bottom to near the top, to have to see that the wherewithal is made to pay the younger girls a living wage, is making us pay a heavy price for the benefit of the next generation."

To test the validity of this prevailing hostility by discovering what changes or losses in employment individuals had experienced since the determinations became effective, and the reasons for these changes, 443 women were personally visited. Most of these women were or had been employed in the department, dry-goods, and 5 and 10 cent stores, 57 of them having been employed during the year in the department store to whose records the Bureau was refused access. The numbers constitute nearly 27 per cent of the number of women employed during March and April, 1914, in the stores from which records were secured, and over 20 per cent of the number employed in the scheduled stores and in the store refusing records. The data secured from the women cover a later period than that represented by the store records heretofore discussed, because it was desirable to reduce to a minimum the errors resulting from defective memory. The women were questioned as to the changes in place of employment, occupation, rate of pay, earnings, and hours of work which had taken place between September 1, 1913, a month before the first ruling took effect, and October 31, 1914, eight months after the last award was made. The personal data also include age and experience. The story told by the results is not a cross section of what happened among the store women, for in the attempt to visit women believed to have suffered from the wage determinations a larger number of low-paid women were interviewed than a strict representation of each group of occupations would have called for.

The number of women and girls in each occupation group in the stores scheduled and the number and per cent who were personally interviewed are shown in Table 27.

TABLE 27.—NUMBER AND PER CENT OF WOMEN AND GIRLS PERSONALLY INTERVIEWED AND FURNISHING INFORMATION IN REGARD TO AGE, EXPERIENCE, OCCUPATION, RATES OF PAY, ETC.

Occupation.	Number of women and girls in stores scheduled.	Women and girls personally interviewed.	
		Number.	Per cent of number in stores.
Portland:			
Saleswomen	727	223	30.67
Office help	221	61	27.60
Cashiers	105	52	49.52
Bundle wrappers, errand and stock girls	173	43	24.86
Workroom help	260	26	10.00
Miscellaneous, including buyers	70	....	....
Total	[1] 1,546	405	26.20
Salem	96	38	39.58
Grand total	[1] 1,642	443	26.98

[1] Include 10 women working in 2 or more departments.

Three hundred and seventy-eight of the 443 women and girls scheduled had been employed in Oregon both before and after the minimum-wage determinations. Sixty-five had not been working in the State before the rulings took effect: some had been working in stores in other States; some had been unemployed, and others were just beginning their industrial career. Thirty-five women giving information were not employed when visited.

For 99 women who had made some change in place of employment since the minimum-wage determinations came into effect, the reasons assigned for the changes, as stated by the women in personal interviews, are given in Table 28.

TABLE 28.—REASONS GIVEN FOR CHANGES IN PLACE OF EMPLOYMENT BY WOMEN AND GIRLS PERSONALLY INTERVIEWED, WHO HAD MADE SOME CHANGE SINCE THE MINIMUM-WAGE DETERMINATIONS CAME INTO EFFECT.

Changes in place of employment.	Women giving specified reasons for change.						
	Dismissed, apprenticeship year ended.	Disagreement with employer.[1]	Better paying position.	Laid off, business dull.[2]	Personal reasons.	Not reported.	Total.
Retail store to retail store	....	8	7	14	17	2	48
Other employment to retail store	....	2	4	3	2	3	14
Retail store to other employment	....	2	1	2	5	....	10
Retail store to unemployment	6	8	....	4	15	....	33
Total	6	20	12	23	39	5	[3] 105
Per cent	5.7	19.1	11.4	21.9	37.1	4.8	100.0

[1] Includes being dismissed or leaving voluntarily because of disagreements.
[2] Includes seasonal work.
[3] 6 women made 2 changes during period and gave different reasons for each change, and each change has been counted.

Of the women who had made changes the largest number had left their places of employment for purely personal reasons; the next largest group had been laid off because business had been dull. The six who had finished their apprenticeship period in their respective occupations declared their employers said they could not pay them $9.25 a week, and that unless they could obtain a permit to work for less their services could not be utilized. As these girls showed no signs of physical defects,[1] permits were not granted them by the industrial welfare commission and they had been unable to obtain any work up to the time they were visited. Probably this completed apprenticeship played some part in the dismissal of girls who had just reached the time when they should have received $9.25, but who were told they were laid off because business was dull. Some of the disagreements over wages which resulted in a girl's leaving were due to her inability to obtain the legal minimum in her old position. Undoubtedly, from the employers' statements and the confirmation of girls who were dismissed, there were more thrown out of employment because of the completion of their apprenticeship than the number shown.

Changes made in occupation have gained in importance since the minimum-wage determinations because experience in an occupation is one of the controlling factors in fixing the minimum rate to which an employee is legally entitled. If an adult woman has been a stock girl for one year, she must be paid $9.25 a week if retained as a stock girl. If, however, she is put in the alteration workroom, she may be employed for any sum not less than $6 for another year. The law will permit her to make as many changes for as many years as there are occupations in the retail stores,[1] without making it necessary for her to receive the minimum wage for experienced adult women. Such frequent changes, however, would not be practicable. To what extent changes from occupation to occupation had been made since the minimum-wage determinations by women still employed in October, 1914, is shown in Table 29.

---

[1] At the time of this investigation permits to work for less than the minimum rate for experienced women in stores had been granted to 2 women not included in the number individually scheduled.

TABLE 29.—CHANGES IN OCCUPATION MADE SINCE THE MINIMUM-WAGE DETERMINATIONS CAME INTO EFFECT REPORTED BY THE PORTLAND WOMEN AND GIRLS PERSONALLY INTERVIEWED WHO WERE EMPLOYED IN OCTOBER, 1914.

Changes in occupation.	Number.	Per cent of total in present occupation.	Women employed in first occupation 1 year or more.		
			Number.	Number receiving increase in rate of pay after change.	Number receiving $9.23 or $9.25 per week after change.
Bundle wrapper, errand girl, or stock girl to—					
Saleswoman	11	5.2	9	6	1
Clerk	8	14.0	7	4	....
Cashier	4	8.5	4	3	1
Cashier to—					
Saleswoman	6	2.8	5	5	1
Clerk	4	7.0	3	1	....
Saleswoman to—					
Cashier	4	8.5	2	1	....
Other occupations	7	....	4	2	1
Other occupations to—					
Saleswoman	8	3.8	6	[1] 2	4
Cashier	5	10.6	3	2	....
Other changes	9	....	5	1	1
Total	[2] 66	16.7	48	27	[3] 9

[1] 2 others suffered a decrease.
[2] 3 women made 2 changes and each change has here been counted.
[3] Includes 2 women who received $9.23 or more prior to change in occupation.

According to this table one-sixth of the women scheduled who were employed in October, 1914, had suffered some change since the minimum-wage determinations came into effect. Of the 63, 48, or 76 per cent, had been employed in their former occupations for one year or more. With the change of occupation, more than half of the 48 received some increase in pay, but only 7 who had not been receiving $9.25 reached the $9.25 minimum. Twenty-one continued to work for the same rate of pay that they had received in their last occupations.

---

[1] The Oregon Industrial Welfare Commission has issued no order defining "occupations." The number of occupations in retail stores varies from one to over a dozen, depending upon the store organization.

As before stated, department-store men do not consider an ordinary bundle wrapper or a stock girl, whatever her experience, to be worth $9.25. To earn $9.25, in the judgment of the employer, she must be put at work requiring more skill. Twenty-three of the women making changes in occupation since the determinations had come from these less skilled occupations and gone into better positions. About a third began their new apprenticeship without a raise. Two-thirds got an increase in wage, two getting the minimum rate of $9.25. If the demands made upon the girl who runs errands or who only wraps bundles are so slight that adult women of normal development ought not to be so engaged, it is natural that these changes should be made. There are some women, however, who have an aversion for certain occupations and others who can not perform more skilled duties. The law will not permit a girl, unless defective, to stay in any occupation after she is 18 for more than one year at less than $9.25. The only basis used for determining her defectiveness is a physical one. Mental retardation occurring in apparently normal people is not taken into consideration. There probably were some women employed in Oregon stores not capable of doing more than errand-girl work. Under the present conditions they will not be retained more than their apprenticeship period.

To what extent women employed in stores have gone from one retail-store occupation to another is shown in Table 30. The table also shows the average years of experience in the present or last occupation and in other retail-store occupations:

TABLE 30.—AVERAGE YEARS OF EXPERIENCE IN PRESENT OCCUPATION AND IN OTHER RETAIL-STORE OCCUPATIONS OF WOMEN AND GIRLS PERSONALLY INTERVIEWED.

[In some cases persons have worked in more than 1 occupation before entering the present one, and so have been recorded in more than 1 column of the table. In such cases the total number reporting will not equal the sum of those having experience in 1 occupation only and those reported as having previous experience in 1 or more other occupations.]

Present occupation.	Experience as— Saleswoman. Number.	Experience as— Saleswoman. Average years of experience.	Office help. Number.	Office help. Average years of experience.	Cashier. Number.	Cashier. Average years of experience.	Bundle wrapper, etc. Number.	Bundle wrapper, etc. Average years of experience.	Workroom help. Number.	Workroom help. Average years of experience.	Number whose store experience was in 1 occupation only.	Total retail-store experience reported. Number.	Total retail-store experience reported. Average years of experience.
PORTLAND.													
Saleswomen	[1] 221	4.4	[2] 4	1.3	10	1.5	18	1.7	[2] 4	2.1	185	[1] 221	4.6
Office help	4	1.3	[3] 60	2.5	5	1.1	17	2.3	......	......	40	[3] 60	3.3
Cashiers	5	.9	4	.7	52	1.8	12	1.2	3	.7	30	52	2.3
Bundle wrappers, etc	3	3.2	1	.1	1	1.7	43	1.2	......	......	38	43	1.2
Workroom help	[2] 4	3.4	......	......	......	......	3	1.8	26	6.6	19	26	7.5
Total	[4] 237	4.2	[5] 69	2.3	68	1.7	93	1.5	[2] 33	5.5	312	[4] 402	4.0
SALEM.													
Miscellaneous	[2] 31	4.1	3	.8	1	1.5	......	......	[2] 4	8.4	34	38	4.3
Grand total	[6] 268	4.2	[5] 72	2.3	69	1.7	93	1.5	[5] 37	5.8	346	[4] 440	4.0

[1] Not including 2 women having less than 1 year's experience but definite amount not specified.
[2] Not including 1 woman, experience not reported.
[3] Not including 1 woman having less than 1 year's experience but definite amount not specified.
[4] Not including 3 women, experience not reported.
[5] Not including 2 women, experience not reported.
[6] Not including 4 women, experience not reported.

Approximately 22 per cent of the 402 Portland women and 11 per cent of the 38 Salem women who reported their retail-store experience had been employed in more than one occupation. More than half of these 94 women had had some experience as bundle wrapper, stock, or errand girl; 17 and 18 per cent, respectively, had gone from cashier and selling work to other occupations, and less than 10 per cent had gone from the office or workroom to other occupations. Seventy-nine per cent of the women reporting had had experience in but one retail-store occupation. Obviously it has not been customary for a woman to work her way from one occupation to another. Where it has been done the girls have gone principally from bundle-wrapper occupations to selling, office, or cashier positions.

The women in the workroom have had the longest experience in their present occupations in the stores, the saleswomen the second longest. The girls in the bundle-wrapper positions averaged a little over a year of experience. Table 31 shows how the ages of the women in the several occupations differed.

TABLE 31.—CLASSIFIED AGES OF WOMEN PERSONALLY INTERVIEWED, BY OCCUPATIONS.

Occupation.	Women in each age group.						Total number reporting age.
	Under 18 years.	18 and under 20 years.	20 and under 22 years.	22 and under 25 years.	25 and under 30 years.	30 years and over.	
Portland:							
Saleswomen	9	32	32	36	49	64	222
Office help	6	17	16	14	6	2	61
Cashiers	11	19	18	3	1		52
Bundle wrappers, errand girls, etc	18	20	4		1		43
Workroom help	1	1	5	7	4	7	25
Salem		8	8	4	8	9	37
Total number	45	97	83	64	69	82	[1] 440
Per cent	10.2	22.0	18.9	14.6	15.7	18.6	100.0

[1] Not including 3 women not reporting age.

More than half of the saleswomen and workroom help were 22 years or over. In the office the majority were between 18 and 25 years of age; among the cashiers between 18 and 22 years; 41.9 per cent of the bundle wrappers and errand girls were under 18 years and 46.5 per cent were between 18 and 20 years.

Although the minimum rate for experienced adults went into effect on November 23, 1913, the increases in rates were frequently not obtained until the spring of 1914, or, in some cases, until after the sustaining decision of the State supreme court in May, 1914. Some violations still existed in September, 1914, as is shown by the tabulations. Table 32 indicates what changes the rates of pay of the 374 women and girls employed before and after the minimum-wage determinations had undergone during the course of the 13 months' period studied. One hundred and fifty-seven, or 42 per cent, received more after the minimum-wage determinations; 18, or less than 5 per cent, received less; 199, or 53 per cent, received the same. Among those receiving an increase in wages, 132 had been getting less than $9.25; 25 had been getting $9.25 or more before the wage determinations took effect.

TABLE 32.—NUMBER OF WOMEN PERSONALLY INTERVIEWED RECEIVING SPECIFIED WEEKLY RATES OF PAY BEFORE AND AFTER MINIMUM-WAGE DETERMINATIONS.[1]

Weekly rate of pay before minimum-wage determinations.	Weekly rate of pay after minimum-wage determinations.												Total number.	Per cent.
	$6	$6.01 to $6.99	$7 to $7.99	$8 to $8.49	$8.50 to $9.22	$9.23 to $9.25	$9.26 to $9.99	$10 to $10.99	$11 to $11.99	$12 to $12.99	$13 to $13.99	$14 and over.		
Under $6......	7	1	1	1	......	1	......	......	......	......	......	......	11	2.9
$6............	44	8	13	1	1	15	......	1	......	......	......	......	83	22.2
$6.01 to $6.99..	1	6	3	1	2	15	......	......	......	......	......	......	28	7.5
$7 to $7.99.....	......	......	3	4	2	5	1	......	1	......	......	......	16	4.3
$8 to $8.49.....	1	......	......	8	1	31	2	2	......	......	......	......	45	12.0
$8.50 to $9.22...	......	......	......	......	2	6	2	2	......	1	......	1	14	3.7
$9.23 to $9.25...	1	......	......	......	......	47	......	6	5	......	......	......	59	15.8
$9.26 to $9.99...	......	......	......	1	......	......	3	1	......	......	......	......	5	1.3
$10 to $10.99...	......	......	......	1	......	2	......	23	2	......	......	1	29	7.8
$11 to $11.99...	......	......	......	......	......	2	......	2	17	4	2	......	27	7.2
$12 to $12.99...	......	......	......	......	......	......	......	......	1	14	......	2	17	4.6
$13 to $13.99...	......	......	......	......	......	......	......	......	......	......	18	......	18	4.8
$14 and over...	......	......	......	......	......	1	......	......	1	......	1	19	22	5.9
Total.....	54	15	20	17	8	125	8	37	27	19	21	23	[2] 374	100.0
Per cent...	14.4	4.0	5.4	4.6	2.1	33.4	2.1	9.9	7.2	5.1	5.6	6.2	100.0	......

---

[1] Excludes 65 women who were not employed in Oregon prior to the minimum-wage determinations.

[2] Not including 4 women, whose previous rate was not reported; present rates, respectively, 2 at $6, 1 at $6.92, and 1 at $14.

Of women who suffered a decrease, only two received less than $9.25 before the determinations, while 16 received that amount or more. All but one of these cases of decreased wages were incidental to some change in position; nine occurred when a change was made in the place of employment, four upon reinstatement after an absence or upon a change in occupation, and four others when women were changed from full-time to part-time work. These figures from the individual, therefore, agree with the showings of the pay roll, namely, that there were very few old employees whose rates, if affected by the minimum-wage determinations, had not been benefited, and that the women and girls entering the retail store with experience sometimes had to begin at a lower rate after the determinations than they had received in their earlier employment.

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE

[Where two or more former or present weekly rates are shown for an

PORTLAND: Saleswomen.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
1	46	3								
2	(1)	21								
3	27	9½								
4	35	10								
5	53	30								
6	27	9								
7	35	13					Store.	Store.	12	Moved from out of town.
8	(1)	10								
9	32	9								
10	40	16								
11	38	11								
12	28	6								
13	33	5								
14	24	3					Department store.	Department store.	2	Better position.
15	29	14								
16	35	16								
17	35	5								
18	30	9								
19	35	5½								
20	30	10								
21	30	10								
22	44	11								
23	33	9					Store.	Department store.		Moved from out of town.
24	35	5								
25	33	9								
26	21	5								
27	28	10								
28	43	10								
29	34	12								
30	20	3								
31	29	2								
32	30	14								
33	29	3½								
34	21	10								
35	(1)	5								
36	21	2½					2 candy stores.	1 candy store.		Work too heavy.
37	29	4								
38	30	7								

[1] Over 40 years.

[2] No longer receives P. M.'s.

[3] Not reported.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL DETERMINATIONS WENT INTO EFFECT.

individual her rate has been changed more than once during the period.]

PORTLAND: Saleswomen.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	Individual No.
....	....	......	......	......	Upholstery and draperies.	$25.00	49½	......	$25.00	$25.00	1
....	....	......	......	......	Muslin underwear.	23.08	41½	2	19.26	19.26	2
....	....	......	......	......	Cloaks and suits.	19.61	48	......	19.61	19.61	3
....	....	......	......	(3)	Draperies...	19.61	49½	......	19.61	19.61	4
....	....	......	$18.46	$19.61	Dress goods.	19.61	48	......	19.61	20.77	5
....	....	......	18.46	17.31	Millinery....	17.31	49½	......	17.31	17.31	6
Supervisor..	Saleswoman.	(3)	......	......	Cloaks and suits.	17.31	44½	......	15.64	15.64	7
....	....	......	......	......	.....do......	17.31	49½	......	17.31	17.31	8
....	....	......	......	......	.....do......	16.15	48	......	16.15	16.15	9
....	....	......	......	......	.....do......	15.00	49½	......	15.00	15.00	10
....	....	......	......	......	Cloaks and suits.	15.00	49½	......	15.00	15.00	11
....	....	......	......	......	Jewelry.....	15.00	45⅜	1	13.75	13.75	12
....	....	......	......	......	Laces.......	15.00	49½	......	15.00	15.00	13
....	....	......	12.00	15.00	Millinery....	15.00	49½	......	15.00	15.00	14
....	....	......	......	......	Cloaks and suits.	15.00	49½	......	15.00	15.00	15
....	....	......	......	......	Leather.....	13.84	33	4	9.60	9.60	16
....	....	......	......	......	Millinery....	13.84	15	8	3.55	3.55	17
....	....	......	......	......	Cloaks and suits.	13.84	49½	......	13.84	13.84	18
....	....	......	......	......	Men's furnishings.	13.84	49½	......	13.84	13.84	19
....	....	......	11.54	13.84	Silk.........	13.84	48	......	13.84	13.84	20
....	....	......	......	......	.....do......	13.84	49½	......	13.84	13.84	21
....	....	......	11.54	13.84	Corsets......	13.84	49½	......	13.84	13.84	22
....	....	......	......	......	Millinery....	13.84	49½	......	13.84	13.84	23
....	....	......	......	......	.....do......	13.84	49½	......	13.84	13.84	24
....	....	......	......	......	Dress trimmings.	13.84	52½	......	13.84	13.84	25
....	....	......	......	......	Drugs.......	13.84	49½	......	13.84	13.84	26
....	....	......	......	......	Knit underwear.	13.84	52½	......	13.84	13.84	27
....	....	......	......	......	Infants' wear.	13.84	49½	......	13.84	13.84	28
....	....	......	......	......	Notions.....	13.84	49½	......	13.84	13.84	29
....	....	......	......	......	Candy......	13.00	48	......	13.00	13.00	30
....	....	......	11.54	12.69	Domestics...	12.69	48	......	12.69	12.69	31
....	....	......	......	......	Toys........	12.69	49½	......	12.69	12.69	32
....	....	......	11.50	12.50	Notions.....	12.50	45⅜	1	11.46	11.46	33
....	....	......	......	......	Waists......	12.50	49½	......	12.50	12.50	34
....	....	......	......	......	Children's clothing.	12.50	45⅜	1	11.46	11.71	35
....	....	......	20.40	12.00	Candy......	12.00	48	......	12.00	12.00	36
....	....	......	......	......	Drugs......	12.00	49½	......	12.00	14.13	37
....	....	......	......	(4)	Cloaks and suits.	12.00	50	......	12.00	14.50	38

[4] In addition to weekly rate now receives 2 per cent commission on sales above a stipulated amount.

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Saleswomen—Continued.

Individual No.	Age.	Years of experience. In selling department.	Years of experience. In alteration or millinery department.	Years of experience. In office (clerical).	Years of experience. As cash girl, bundle wrapper, errand girl, stock girl, etc.	Years of experience. As cashier (tube or floor).	Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay. Place of employment. Change from—	Place of employment. Change to—	Place of employment. Years in former position.	Place of employment. Reason for change.
39	23	3½	......	......	......	......	......	......	......	......
40	31	3	......	......	......	......	......	......	......	......
41	33	2¼	......	......	......	......	......	......	......	......
42	23	13	......	......	......	......	......	......	......	......
43	22	4	......	......	......	......	......	......	......	......
44	24	4	......	......	......	......	......	......	......	......
45	37	2	......	......	......	......	......	......	......	......
46	21	2½	......	......	......	......	......	......	......	......
47	26	9	......	......	......	......	......	......	......	......
48	30	7	......	......	......	......	......	......	......	......
49	32	4	......	......	......	......	......	......	......	......
50	27	3½	......	......	......	......	......	......	......	......
51	(2)	10	......	......	......	......	......	......	......	......
52	35	5	......	......	......	......	......	......	......	......
53	30	3	......	......	......	......	......	......	......	......
54	21	2	......	......	......	......	......	......	......	......
55	25	7	......	......	......	......	......	......	......	......
56	24	9½	......	......	½	......	......	......	......	......
57	(4)	4	......	......	......	......	......	......	......	......
58	29	10	......	......		......	Department store.	Department store.	1¼	(1) ......
59	26	4	......	......	......	......	......	......	......	......
60	23	5	......	......	......	......	......	......	......	......
61	19	6	......	......	......	......	......	......	......	......
62	25	4	......	......	......	3	......	......	......	......
63	35	8	......	......	......	......	Department store.	Department store.	1/12	Employment temporary.
64	19	4	......	......	......	......				
65	21	3½	......	......	......	......	Department store.	Department store.	2¼	Disagreement with employer.
66	38	4½	......	......	......	......	......	......	......	......
67	24	2½	......	......	......	......	......	......	......	......
68	29	4	......	......	......	......	......	......	......	......
69	37	11	......	......	......	......	......	......	......	......
70	27	8	......	......	......	......	......	......	......	......
71	26	2 3/12	......	......	......	......	......	......	......	......
72	25	5	......	......	......	......	......	......	......	......
73	21	2	......	......	......	......	......	......	......	......

---

[1] Not reported.

[2] Over 35 years of age.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Saleswomen—Continued.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	Individual No.
					Children's cloaks.	$12.00	50		$12.00	$12.00	39
					Millinery	12.00	49½		12.00	12.00	40
					Waists	12.00	49½		12.00	12.00	41
					do	12.00	49½		12.00	12.00	42
			$9.23	$11.54	Knit underwear.	11.54	49½		11.54	11.54	43
			10.38	11.54	Jewelry	11.54	49½		11.54	11.54	44
			9.23	11.54	Muslin underwear.	11.54	49½		11.54	11.54	45
Doll doctor.	Saleswoman.	(4)	9.23	11.54	Cloaks and suits.	11.54	47¾		10.65	10.65	46
					Children's clothing.	11.54	49½		11.54	11.54	47
					Handkerchiefs.	11.54	49½		11.54	11.54	48
					Draperies	11.54	49½		11.54	11.54	49
					Millinery	11.54	49½		11.54	11.54	50
					Draperies	11.54	49½		11.54	11.54	51
					Millinery	11.54	50½		11.54	11.54	52
			9.23	[3]11.54	Gloves	11.54	48		11.54	11.54	53
					Knit underwear.	11.54	49½		11.54	11.54	54
					Waists	11.54	49½		11.54	11.54	55
					Knit underwear.	11.54	49½		11.54	11.54	56
					Boys' clothing.	11.54	49½		11.54	11.54	57
			15.00	11.50	Millinery	11.50	47 5/16		11.50	11.50	58
			9.25	11.50	Muslin underwear.	11.50	49½		11.50	11.50	59
					Children's clothing.	11.50	49½		11.50	11.50	60
					Ribbons	11.00	47 3/16		10.56	10.56	61
					Muslin underwear.	10.61	45 1/16		9.80	9.80	62
			9.25 10.00	10.00 10.50	Art goods	10.50	24¾	6	5.25	5.25	63
					Knit underwear.	10.50	49½		10.50	10.50	64
			11.54	10.38	Ribbons	10.38	41 3/16	2	9.18	9.18	65
					Veilings	10.38	43¾	1	9.18	9.18	66
					Linens	10.38	49½		10.38	10.38	67
					Toilet articles.	10.38	49½		10.38	10.38	68
			9.23	10.38	Muslin underwear.	10.38	52½		10.38	10.38	69
					Baskets	10.38	49		10.38	10.38	70
					Art needlework.	10.38	47¾		9.99	9.99	71
					Jewelry	10.38	43¾	1	9.18	9.18	72
					Drugs	10.38	45¾	1	10.38	10.38	73

[3] No longer receive P. M.'s.

[4] Over 40 years of age.

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Saleswomen—Continued.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
74	35	4								
75	25	6								
76	26	1¼								
77	30	2⅓								
78	27	6								
79	33	5	4							
80	25	4					Store	Department store.	(1)	Moved from out of town.
81	29	6								
82	35	7								
83	30	3								
84	36	6								
85	25	4								
86	27	7								
87	28	4	(1)							
88	27	4½								
89	29	5								
90	22	3								
91	38	[2] 5								
92	26	3								
93	26	3					Department store.	Department store.	1/6	Temporary employment.
94	21	2½								
95	21	6								
96	35	9								
97	30	7					Specialty store.	Department store.	1	Laid off on account of business depression.
98	44	9								
99	21	2								
100	27	8								
101	25	5								
102	24	4					Store	Department store.	1	Moved from out of town.
103	30	3								
104	22	3								
105	20	1 1/12								
106	27	6								
107	18	1				1				
108	21	4								
109	28	1								
110	39	3					Store Wholesale millinery.	Wholesale millinery. Department store.	1 ¼	Moved from out of town. Better position
111	19	3½								

[1] Not reported.

[2] In addition formerly received 2 per cent commission on sales above a stipulated amount.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Saleswomen—Continued.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	Individual No.
....	....	......	......	......	Millinery....	$10.38	49½	......	$10.38	$10.38	74
....	....	......	......	......	Jewelry.....	10.38	49½	......	10.38	10.38	75
....	....	......	$9.23	$10.38	Muslin......	10.38	48	......	10.38	10.38	76
....	....	......	9.23	10.15	Leather.....	10.15	52½	......	10.15	10.15	77
....	....	......	......	......	.....do......	10.15	49½	......	10.15	10.15	78
....	....	......	9.25	10.00	Corsets......	10.00	45½	1	10.00	10.00	79
....	....	......	......	......	Millinery....	10.00	49½	......	10.00	10.00	80
....	....	......	......	......	Domestics...	10.00	49½	......	10.00	10.00	81
....	....	......	......	......	Knit underwear	10.00	49½	......	10.00	10.00	82
....	....	......	8.50	10.00	Gloves......	10.00	33	4	6.67	6.67	83
....	....	......	......	......	Muslin underwear.	10.00	45¼	1	9.20	9.20	84
....	....	......	11.14	10.00	Waists......	10.00	49½	......	10.00	10.00	85
....	....	......	[3] 8.25	10.00	Children's clothing.	10.00	49½	......	10.00	10.00	86
....	....	......	8.00	10.00	Ribbons....	10.00	43½	......	10.00	10.00	87
....	....	......	......	......	Neckwear...	9.92	49½	......	9.92	9.92	88
....	....	......	8.08 9.23	9.23 9.81	Ribbons....	9.81	48	......	9.81	9.81	89
....	....	(1)	......	......	Toys and kodaks.	9.81	49½	......	9.81	9.81	90
Secret service	Saleswoman.	......	15.00	9.25	Bargains....	9.25	49½	......	9.25	9.25	91
....	....	......	9.00	9.25	Millinery....	9.25	$45\frac{1}{10}$	1	8.48	8.48	92
....	....	......	9.23	[4] 9.25	.....do......	9.25	49½	......	9.25	9.38	93
....	....	......	8.00	9.25	Hosiery.....	9.25	49½	......	9.25	9.43	94
....	....	......	8.50	[4] 9.25	Knit underwear.	9.25	49½	......	9.25	10.25	95
....	....	......	8.25	9.25	Leather.....	9.25	49½	......	9.25	9.25	96
....	....	......	10.00	9.25	Laces and embroidery.	9.25	49½	......	9.25	9.25	97
....	....	......	8.00	9.25	Drapery....	9.25	49½	......	9.25	9.25	98
....	....	......	......	......	Buttons.....	9.25	49½	......	9.25	9.25	99
....	....	......	8.50	9.25	Leather.....	9.25	45¾	1	8.48	8.48	100
....	....	......	......	......	Muslin underwear.	9.25	49½	......	9.25	9.25	101
....	....	......	......	[4] 9.25	Hosiery.....	9.25	49½	......	9.25	9.64	102
....	....	......	......	......	Velvets.....	9.25	41⅝	2	7.71	7.71	103
....	....	......	8.25	9.25	Notions.....	9.25	$41\frac{9}{10}$	2	8.48	8.48	104
....	....	......	11.25	[5] 9.25	General.....	9.25	49½	......	9.25	9.25	105
....	....	......	6.00	9.22	Notions.....	9.25	49½	......	9.25	9.25	106
....	....	......	8.00	9.25	Books.......	9.25	49½	......	9.25	9.25	107
....	....	......	......	......	Art needlework.	9.25	49½	......	9.25	9.25	108
....	....	......	8.25	9.25	.....do......	9.25	49½	......	9.25	9.25	109
....	....	....	(1) 1.50	1.50 9.25	.....do......	9.25	49½	......	9.25	9.25	110
....	....	......	......	......	Notions.....	9.25	49½	......	9.25	9.25	111

[3] And 2 years in store secret service.

[4] In addition to weekly rate now receives 2 per cent commission on sales above stipulated amount.

[5] At present receives some P. M.'s.

As before stated, department-store men do not consider an ordinary bundle wrapper or a stock girl, whatever her experience, to be worth $9.25. To earn $9.25, in the judgment of the employer, she must be put at work requiring more skill. Twenty-three of the women making changes in occupation since the determinations had come from these less skilled occupations and gone into better positions. About a third began their new apprenticeship without a raise. Two-thirds got an increase in wage, two getting the minimum rate of $9.25. If the demands made upon the girl who runs errands or who only wraps bundles are so slight that adult women of normal development ought not to be so engaged, it is natural that these changes should be made. There are some women, however, who have an aversion for certain occupations and others who can not perform more skilled duties. The law will not permit a girl, unless defective, to stay in any occupation after she is 18 for more than one year at less than $9.25. The only basis used for determining her defectiveness is a physical one. Mental retardation occurring in apparently normal people is not taken into consideration. There probably were some women employed in Oregon stores not capable of doing more than errand-girl work. Under the present conditions they will not be retained more than their apprenticeship period.

To what extent women employed in stores have gone from one retail-store occupation to another is shown in Table 30. The table also shows the average years of experience in the present or last occupation and in other retail-store occupations:

TABLE 30.—AVERAGE YEARS OF EXPERIENCE IN PRESENT OCCUPATION AND IN OTHER RETAIL-STORE OCCUPATIONS OF WOMEN AND GIRLS PERSONALLY INTERVIEWED.

[In some cases persons have worked in more than 1 occupation before entering the present one, and so have been recorded in more than 1 column of the table. In such cases the total number reporting will not equal the sum of those having experience in 1 occupation only and those reported as having previous experience in 1 or more other occupations.]

Present occupation.	Experience as—										Number whose store experience was in 1 occupation only.	Total retail-store experience reported.	
	Saleswoman.		Office help.		Cashier.		Bundle wrapper, etc.		Workroom help.				
	Number.	Average years of experience.	Number.	Average years of experience.	Number.	Average years of experience.	Number.	Average years of experience.	Number.	Average years of experience.		Number.	Average years of experience.
PORTLAND.													
Saleswomen	[1] 221	4.4	[2] 4	1.3	10	1.5	18	1.7	[2] 4	2.1	185	[1] 221	4.6
Office help	4	1.3	[3] 60	2.5	5	1.1	17	2.3	......	......	40	[3] 60	3.3
Cashiers	5	.9	4	.7	52	1.8	12	1.2	3	.7	30	52	2.3
Bundle wrappers, etc	3	3.2	1	.1	1	1.7	43	1.2	......	......	38	43	1.2
Workroom help	[2] 4	3.4	......	......	......	......	3	1.8	26	6.6	19	26	7.5
Total	[4] 237	4.2	[5] 69	2.3	68	1.7	93	1.5	[2] 33	5.5	312	[4] 402	4.0
SALEM.													
Miscellaneous	[2] 31	4.1	3	.8	1	1.5	......	......	[2] 4	8.4	34	38	4.3
Grand total	[6] 268	4.2	[5] 72	2.3	69	1.7	93	1.5	[5] 37	5.8	346	[4] 440	4.0

[1] Not including 2 women having less than 1 year's experience but definite amount not specified.
[2] Not including 1 woman, experience not reported.
[3] Not including 1 woman having less than 1 year's experience but definite amount not specified.
[4] Not including 3 women, experience not reported.
[5] Not including 2 women, experience not reported.
[6] Not including 4 women, experience not reported.

Approximately 22 per cent of the 402 Portland women and 11 per cent of the 38 Salem women who reported their retail-store experience had been employed in more than one occupation. More than half of these 94 women had had some experience as bundle wrapper, stock, or errand girl; 17 and 18 per cent, respectively, had gone from cashier and selling work to other occupations, and less than 10 per cent had gone from the office or workroom to other occupations. Seventy-nine per cent of the women reporting had had experience in but one retail-store occupation. Obviously it has not been customary for a woman to work her way from one occupation to another. Where it has been done the girls have gone principally from bundle-wrapper occupations to selling, office, or cashier positions.

The women in the workroom have had the longest experience in their present occupations in the stores, the saleswomen the second longest. The girls in the bundle-wrapper positions averaged a little over a year of experience. Table 31 shows how the ages of the women in the several occupations differed.

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM
STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: **Saleswomen**—Continued.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determinations went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
112	30	6								
113	26	1/12			3		Wholesale millinery.	Department store.	3	Better position.
114	27	1½								
115	23	4								
116	25	6½		½						
117	21	4								
118	25	4					Dry-goods store.	Department store.	1 1/12	Firm failed.
119	29	1¾								
120	24	1⅔								
121	19	5								
122	23	2								
123	19	4					5 and 10 cent store.	Department store.	⅔	Better position.
124	24	3								
125	22	2	2							
126	34	1								
127	27	5								
128	22	4					Store.	Department store.	3½	Moved from out of town.
129	24	3								
130	23	3					Department store.	Department store.	2½	Business dull.
131	30	4⅔					do.	do.	½	Voluntarily.
132	36	4 1/12								
133	20	4								
134	20	2					5 and 10 cent store.	Department store.	1	Better position.
135	22	½								
136	26	5								
137	20	⅔	1				Millinery store.	Department store.	1/12	Better position.
138	18	3								
139	20	3 1/12					Store.	Department store.	3	Moved from out of town.
140	43	11								
141	21	1 1/12								
142	30	7								
143	23	6								
144	24	3½								
145	20	3⅔								
146	22	1½								
147	38	5								

---

[1] No longer receives P. M.'s.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Saleswomen—Continued.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						
Occupation.			Weekly rate of pay.								
Change from	Change to	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages	Weekly earnings (including P. M.'s and commissions).	Individual No.
.. ..			....	.	Groceries...	$9.23	49½	.	$9.23	$9.23	112
Packer...	Saleswoman	3	$[illegible] 6.00	$6.00 9.23	Millinery....	9.23	49½	...	9.23	9.23	113
..			8.08	9.23	Domestics...	9.23	49½	...	9.23	9.23	114
			...	..	Crockery.	9.23	49½	....	9.23	9.23	115
		..	8.31	9.23	Bargains	9.23	49½	....	9.23	9.23	116
		.	8.08	9.23	White goods	9.23	49½	......	9.23	9.23	117
		.	....	....	Jewelry	9.23	51	......	9.23	9.23	118
		.	8.08	9.23	Neckwear...	9.23	49½	.....	9.23	9.23	119
.		.	7.00	9.23	Candy......	9.23	49½	......	9.23	9.23	120
.			6.92	9.23	Notions...	9.23	49½	....	9.23	9.58	121
			8.08	9.23	Drugs....	9.23	49½	.....	9.23	10.15	122
		8	4.00 6.00	6.00 9.23	Art needle goods.	9.23	49½	.....	9.23	9.27	123
			8.08	9.23	Veilings.....	9.23	49½	......	9.23	9.23	124
			8.77 9.23 8.77	9.23 8.77 9.23	Millinery....	9.23	49½	......	9.23	9.23	125
			8.08	9.23	Children's clothing.	9.23	29[illegible]	5	4.97	4.97	126
				.	Neckwear...	9.23	49½	......	9.23	9.23	127
					Art needle goods.	9.23	49½	......	9.23	9.23	128
					Art needlework.	9.23	49½	......	9.23	9.23	129
.					Bargains....	9.23	49½	......	9.23	9.23	130
				...	Art needlework.	9.23	49½	.....	9.23	9.23	131
					Toys.	9.23	49½	......	9.23	9.23	132
			6.92 8.08	8.08 9.23	General.....	9.23	49½	...	9.23	9.23	133
			6.[illegible] 6.[illegible] 7.58	6.[illegible] 7.58 9.23	Notions.....	9.23	49½	...	9.23	9.23	134
				....	Millinery...	9.23	49½	.....	9.23	9.23	135
					[illegible]	9.23	49½	..	9.23	9.2[illegible]	136
				.	Millinery..	9.23	49½	....	9.23	9.23	137
			6.92	9.23	Art needlework.	9.23	49½	...	9.23	9.23	138
			6.00	9.23	Bargain millinery.	9.23	49½	......	9.23	9.23	139
				...	Bargain cloaks and [illegible]	9.23	49½	....	9.23	9.23	140
			8.08	9.23	Domestics...	9.23	49½	....	9.23	9.23	141
			8.08	9.23	Millinery..	9.23	49½	....	9.23	9.[illegible]	142
		.	..	...	Jewelry .	9.23	49½	. .	9.23	9.[illegible]	143
.		.		.	Stationery..	9.[illegible]	48	. .	9.[illegible]	9.[illegible]	144
......		.		.	[illegible]	9.[illegible]	[illegible]	.	[illegible]	9.[illegible]	145
...			8.08	9.[illegible]	Notions..	9.[illegible]	[illegible]		9.[illegible]	9.[illegible]	146
..			.	.	Gloves..	9.23	49½	.	9.23	9.23	147

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM
STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: **Saleswomen**—Continued.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
148	20	1½								
149	18	3								
150	28	2½					Department store.	Department store.	½	Disagreement with manager.
151	27	4					Store	do	3	Moved from out of town.
152	41	1½								
153	20	2								
154	23	1½								
155	36	7								
156	26	8								
157	25	6								
158	19	1				1				
159	23	5								
160	19	3								
161	20	1½			½					
162	24	4					General store	Department store.	1½	Moved from out of town.
163	26	(¹)								
164	19	2½					Department store.	Department store.	(¹)	Temporary employment.
165	23	4								
166	23	1½	1½							
167	23	4					Store	Department store.	3	Moved from out of town.
168	19	1½		½						
169	26	9								
170	17	3								
171	50	3								
172	18	½				1				
173	24	1½								
174	20	½				2				
175	19	1			1					
176	21	½			1					
177	21	½			½					
178	19	½				1[2]				
179	17	1½								
180	25	½								
181	20	1				3				
182	17	3								
183	22	3					Private family	Store	(¹)	
184	18	½			1					
185	21	2					Department store	Department store	1½	Laid off; business depression.

[1] Not reported.
[2] In addition, formerly received 2 per cent commission on all sales above a stipulated amount.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Saleswomen—Continued.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	Individual No.
......	......	......	......	......	Groceries....	$9.23	49½	......	$9.23	$9.23	112
Packer......	Saleswoman	3	$4.00 6.00	$6.00 9.23	Millinery....	9.23	49½	......	9.23	9.23	113
......	......	......	8.08	9.23	Domestics...	9.23	49½	......	9.23	9.23	114
......	......	......	......	......	Crockery....	9.23	49½	......	9.23	9.23	115
......	......	......	8.31	9.23	Bargains....	9.23	49½	......	9.23	9.23	116
......	......	......	8.08	9.23	White goods	9.23	49½	......	9.23	9.23	117
......	......	......	......	......	Jewelry.....	9.23	51	......	9.23	9.23	118
......	......	......	8.08	9.23	Neckwear...	9.23	49½	......	9.23	9.23	119
......	......	......	7.00	9.23	Candy......	9.23	49½	......	9.23	9.23	120
......	......	......	6.92	9.23	Notions.....	9.23	49½	......	9.23	9.58	121
......	......	......	8.08	9.23	Drugs.......	9.23	49½	......	9.23	10.15	122
......	......	½	4.00 6.00	[1]6.00 9.23	Art needle goods.	9.23	49½	......	9.23	9.23	123
......	......	......	8.08	9.23	Veilings.....	9.23	49½	......	9.23	9.23	124
......	......	......	8.77 9.23 8.77	9.23 8.77 9.23	Millinery....	9.23	49½	......	9.23	9.23	125
......	......	......	8.08	9.23	Children's clothing.	9.23	29$\frac{3}{10}$	5	4.97	4.97	126
......	......	......	......	......	Neckwear...	9.23	49½	......	9.23	9.23	127
......	......	......	......	......	Art needle goods.	9.23	49½	......	9.23	9.23	128
......	......	......	......	......	Art needlework.	9.23	49½	......	9.23	9.23	129
......	......	......	......	......	Bargains....	9.23	49½	......	9.23	9.23	130
......	......	......	......	......	Art needlework.	9.23	49½	......	9.23	9.23	131
......	......	......	......	......	Toys........	9.23	49½	......	9.23	9.23	132
......	......	......	6.92 8.08	8.08 9.23	General.....	9.23	49½	......	9.23	9.23	133
......	......	......	6.25 6.92 7.38	6.92 7.38 9.23	Notions.....	9.23	49½	......	9.23	9.23	134
......	......	......	......	......	Millinery....	9.23	49½	......	9.23	9.23	135
......	......	......	......	......	Bargains....	9.23	49½	......	9.23	9.23	136
......	......	......	......	......	Millinery....	9.23	49½	......	9.23	9.23	137
......	......	......	6.92	9.23	Art needlework.	9.23	49½	......	9.23	9.23	138
......	......	......	6.00	9.23	Bargain millinery.	9.23	49½	......	9.23	9.23	139
......	......	......	......	......	Bargain cloaks and suits.	9.23	49½	......	9.23	9.23	140
......	......	......	8.08	9.23	Domestics...	9.23	49½	......	9.23	9.23	141
......	......	......	8.08	9.23	Stationery..	9.23	49½	......	9.23	9.23	142
......	......	......	......	......	Jewelry.....	9.23	49½	......	9.23	9.23	143
......	......	......	......	......	Stationery..	9.23	48	......	9.23	9.23	144
......	......	......	......	......	Ribbons....	9.23	49½	......	9.23	9.23	145
......	......	......	8.08	9.23	Notions.....	9.23	49½	......	9.23	9.23	146
......	......	......	......	......	Gloves......	9.23	49½	......	9.23	9.23	147

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Saleswomen—Concluded.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
186	20	½			2					
187	17	½			1					
188	19	1½					5 and 10 cent store.	Department store.	½	Disagreement with manager.
189	17	¾		(1)			Office	do	(2)	(2)
190	19	¾			2¾					
191	19	½			2					
192	21	¾								
193	19	½			1½					
194	19	1½								
195	20	3					Store	Department store.	1/12	Moved from out of town.
196	17	½					Department store.	do	½	Laid off; business depression.
197	18	½			1					
198	22	½		3½						
199	26	1/12								
200	17	1/6								
201	15	1/12								
202	23	1½								
203	22	1/12								
204	17	½			1½					
205	32	(1)								
206	41	3					Department store.	5 and 10 cent store.	½	Laid off on account of sickness.
207	18	1/6			1½					
208	19	½			2					
209	18	½			2 1/12	¾	Department store. Hop picking	Hop picking Grocery store	¾ 1 1/12	Disagreement with employer. Seasonal employment.
210	18	¾				1	Department store.	Department store.	1	(2)
211	18	1/12								

---

[1] Less than 1 year.

[2] Not reported.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Saleswomen—Concluded.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions)	Individual No.
Bundle wrapper.	Saleswoman.	2	$6.00	$6.92	Bargains.	$6.92	49½	....	$6.92	$6.92	186
.do....	.do...	1	6.00	6.92	Corsets....	6.92	49½	......	6.92	6.92	187
....	......	...	5.00	6.92	Notions..	6.92	49½	......	6.92	6.92	188
Clerk....	Demonstrator and saleswoman.	(³)	(³)	³ 6.92	Paper goods.	6.92	41$\frac{3}{10}$	2	5.86	5.86	189
Bundle wrapper.	Saleswoman.	2½	......	......	Corsets......	6.46	49½	......	6.46	6.46	190
Cash girl...	.do...	2	6.00	6.46	Handkerchiefs.	6.46	49½	......	6.46	6.46	191
....	....	......	......	......	Art needlework.	6.00	49½	......	6.00	6.00	192
Bundle wrapper.	Saleswoman.	1½	......	......	General....	6.00	49½	......	6.00	6.00	193
....	....	......	......	......	Gloves	6.00	49½	.....	6.00	6.00	194
....	....	......	......	......	Millinery..	6.00	49½	....	6.00	6.00	195
....	....	......	......	......	Bargain millinery.	6.00	49½	......	6.00	6.00	196
Bundle wrapper.	Saleswoman.	1	......	......	Jewelry...	6.00	49½	......	6.00	6.00	197
Clerk......	.do...	3½	6.92	6.00	Patterns....	6.00	49½	.....	6.00	6.00	198
....	....	......	......	......	Linens .	6.00	48	....	6.00	6.00	199
....	....	......	......	......	Candies...	6.00	50	.....	6.00	6.00	200
....	....	......	......	......	Notions.	6.00	47½	...	5.77	5.77	201
....	....	......	......	......	Infants' wear.	6.00	46½	......	5.65	5.65	202
....	....	......	......	......	Bargains..	6.00	45¾	1	5.54	5.54	203
Cashier....	Saleswoman	1½	......	......	Drugs	6.00	47½	1	5.54	5.54	204
....	....	......	......	......	Bargains..	6.00	49½	......	6.00	6.00	205
....	....	......	9.23	6.00	Crockery	6.00	50	....	6.00	6.00	206
Transfer girl.	Saleswoman.	1½	......	......	Stationery.	6.00	49½	......	6.00	6.00	207
....	....	......	......	(³)	Corsets......	6.00	49½	.....	6.00	7.38	208
....	....	......	......	......	Groceries...	⁴ 6.00	38	4	4.00	4.00	209
Cashier....	Saleswoman.	1	......	......	Hosiery.	6.00	36	....	4.38	4.38	210
			......	......	.do ..	6.00	36	.....	4.38	4.38	211

---

³ At present receives some P. M.'s.

⁴ Dinners in addition.

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Workroom employees.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor)	Place of employment.			
							Change from—	Change to—	Years in former position.	Reason for change.
1	40		7							
2	(¹)		15							
3	50		35							
4	27	10	5							
5	22		6							
6	35		5½							
7	26		5							
8	(¹)		20							
9	42		13							
10	(²)		6							
11	35		³ 7							
12	23	3½	½							
13	24		4				Millinery store.	Department store.	½	Moved from out of town
14	17	1	1							
15	22		2							
16	20	1	3							
17	21		6							
18	20		1½							
19	22		4							
20	19		2½		3					
21	22		5							
22	22		4				Dry-goods store	Department store.	(²)	Laid off at end of season.
23	27		5				Department store.	...do.....	1	..do.....
24	21				½					
25	28		6				Department store	Housekeeper...	1½	Personal

[1] Over 40 years of age.

[2] Not reported.

[3] Includes experience as saleswoman.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Workroom employees.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						
Occupation			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation	Former rate	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages	Weekly earnings (including P. M.'s and commissions)	Individual No.
			$18.46	$19.61	Alteration, cloak and suit.	$19.61	48	......	$19.61	$19.61	1
					...do......	18.46	49½	......	18.46	18.46	2
					do......	15.00	49½	......	15.00	15.00	3
					Alteration, corsets.	14.00	49½	......	14.00	14.00	4
			10.00	14.00	Alteration, cloak and suit.	14.00	48	......	14.00	14.00	5
					Workroom, pennants	13.84	49½	......	13.84	13.84	6
					Workroom, carpets	13.84	49½	......	13.84	13.84	7
					Workroom, millinery	13.84	47½	......	13.80	13.80	8
					do...	13.75	49½	......	13.75	13.75	9
					Workroom, shades.	12.69	48	......	12.69	12.69	10
			12.69	11.54	Alteration, cloak and suit	11.54	49½	......	11.54	11.54	11
Saleswoman	Mender	3			Workroom, gloves	11.54	49½	......	11.54	11.54	12
					Workroom, millinery.	10.38	49½	......	10.38	10.38	13
Saleswoman	Alteration hand	1			Alteration, cloak and suit	9.25	49½	......	9.25	9.25	14
			8.25	9.25	Workroom, millinery	9.25	44	.....	9.25	9.25	15
			8.00	9.25	do	9.25	45½	1	7.71	7.71	16
					do	9.25	[illegible]	....	9.25	9.25	17
			[illegible]	9.25	Alteration, cloak and suit.	9.25	[illegible]	...	9.25	9.25	18
			[illegible]	9.25	do	9.25	48	...	9.25	9.25	19
			[illegible]	9.25	Alteration, corsets	9.25	[illegible]	...	9.25	9.25	20
			[illegible]	9.25	do	9.25	[illegible]	...	9.25	9.25	21
					Workroom, millinery	9.25	[illegible]	1	[illegible]	[illegible]	22
			10.00	9.25	do	9.25	[illegible]	..	[illegible]	[illegible]	23
Alteration hand Stock girl..	Stock girl Alteration hand	[illegible]			Alteration, cloak and suit.	6.00	48		6.00	6.00	24
Alteration hand	Housekeeper	[illegible]	14.00	[illegible]	Housekeeping	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Office employees.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Place of employment.			
							Change from—	Change to—	Years in former position.	Reason for change.
1	(1)			14						
2	(2)			15						
3	26			4						
4	22			5						
5	28			1/12	6	1/12				
6	23			6						
7	18			1		1				
8	20			5						
9	23			5						
10	24			2	2					
11	22			2						
12	20			2	1					
13	21	2		½			5 and 10 cent store.	Office	2	Personal
14	18			2						
15	21			5						
16	21			4						
17	24			5						
18	25			5½						
19	20			2						
20	19			1½						
21	25			7	2					
22	23			1½						
23	20			4						
24	18			2						
25	22			½	3½					
26	24			1½	4½					
27	29			4½						
28	20			1½						
29	23			4						
30	20			3	1					
31	19			2½						
32	18			2½						
33	16			1½						
34	20			½	4½		Department store.	Newspaper office.	4½	Could not obtain legal minimum.
35	21			½	3					
36	19	1		½			5 and 10 cent store.	Meat market	1	Personal
37	19	½		½		1				
38	23			6						
39	20			½	1½					
40	19			½		2				
41	19			1/12	1 1/12		General store	Department store	½	Moved from out of town.
42	21	2		½		1½				
43	19			½	2½					
44	17			1						
45	17			(4)						

[1] Over 30, but under 35 years of age.

[2] Over 35 years of age.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Office employees.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914						Individual No.
Occupation.			Weekly rate of pay.								
Change from	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions)	
....	....	.....	$15.00	$16.15	Cashier.....	$16.15	49½	......	$16.15	$16.15	1
....	....	.....	.....	.....	Mail-order clerk.	13.84	49½	......	13.84	13.84	2
....	....	.....	11.54	12.69	Cashier.....	12.69	53½	......	12.69	12.69	3
....	....	.....	11.54	12.69	Bookkeeper.	12.69	49½	......	12.69	12.69	4
Cashier, tube	Cashier, office.	1/12	10.38	11.54	Cashier.....	11.54	49½	......	11.54	11.54	5
....	....	.....	(1)	(1)	Auditor.....	11.54	49½	......	11.54	11.54	6
....	....	.....	7.50 10.25	10.25 11.25	Clerk.....	11.25	49½	......	11.25	11.25	7
....	....	.....	9.23	10.38	Auditor..	10.38	43½	......	10.38	10.38	8
....	....	.....	.....	.....	Complaint clerk	10.38	49½	......	10.38	10.38	9
....	....	.....	.....	.....	Bill clerk...	10.38	49½	......	10.38	10.38	10
....	....	.....	9.00	10.00	do....	10.00	49½	......	10.00	10.00	11
....	....	.....	9.34	9.92	Cashier....	9.92	49½	......	9.92	9.92	12
Saleswoman	Stenographer.	2	7.50	9.75	Stenographer	9.75	45	......	9.75	9.75	13
....	....	.....	7.50	9.25	Stock clerk..	9.25	49½	......	9.25	9.25	14
....	....	.....	(1)	(1)	Auditor...	9.25	49½	......	9.25	9.25	15
....	....	.....	8.00	9.25	Clerk....	9.25	49½	......	9.25	9.25	16
....	....	.....	.....	.....	do....	9.25	49½	......	9.25	9.25	17
....	....	.....	.....	.....	Complaint clerk	9.25	49½	......	9.25	9.25	18
....	....	.....	.....	.....	Bookkeeper.	9.25	48	......	9.25	9.25	19
....	....	.....	8.65	9.25	Clerk....	9.25	48	......	9.25	9.25	20
....	....	.....	.....	.....	Bookkeeper.	9.25	48	......	9.25	9.25	21
....	....	.....	6.00	9.25	Bill clerk....	9.25	47½	......	8.87	8.87	22
....	....	.....	6.75	9.25	Clerk.....	9.25	49½	......	9.25	9.25	23
....	....	.....	6.00	9.25	Bookkeeper.	9.25	49½	......	9.25	9.25	24
....	....	.....	8.00	9.25	Clerk.....	9.25	49½	......	9.25	9.25	25
....	....	.....	8.54	9.25	do....	9.25	49½	......	9.25	9.25	26
....	....	.....	.....	.....	Bill clerk....	9.25	49½	......	9.25	9.25	27
....	....	.....	6.75	9.25	Clerk....	9.25	49½	......	9.25	9.25	28
....	....	.....	[illegible]	9.25	do....	9.25	49½	......	9.25	9.25	29
....	....	.....	6.75	9.25	do....	9.25	49½	......	9.25	9.25	30
....	....	.....	.....	.....	Stenographer	8.00	49½	......	8.00	8.00	31
....	....	.....	.....	.....	Typist	8.00	49½	......	8.00	8.00	32
....	....	.....	6.50 6.75	6.75 8.00	Stenographer	8.00	43½	......	8.00	8.00	33
Errand girl	Stenographer	4½	6.75	8.00	...do......	8.00	45	......	8.00	8.00	34
Cashier...	Clerk...	3	7.00	8.00	Clerk.....	8.00	44	1	7.17	7.17	35
Saleswoman	...do...	1	5.00	7.50	....do.......	7.50	(1)	2	6.25	6.25	36
Cashier... Saleswoman	Saleswoman Bill clerk..	1 ½	6.00	7.50	Bill clerk...	7.50	49½	......	7.50	7.50	37
....	....	.....	.....	.....	Cashier....	[illegible]	49½	......	[illegible]	[illegible]	38
Stock girl...	Clerk...	1½	6.50	7.25	Clerk....	7.25	49½	......	[illegible]	[illegible]	39
Cashier...	do..	2	.....	.....	do....	6.75	48	......	6.75	6.75	40
Wrapper...	Mail-order clerk.	1 1/12	6.00	6.75	Mail-order clerk	6.75	49½	......	6.75	6.75	41
....	....	.....	.....	.....	do....	6.50	49½	......	6.50	6.50	42
Wrapper...	Clerk...	2½	6.00	6.50	do....	6.50	[illegible]	......	6.50	6.50	43
....	....	.....	.....	.....	Bill clerk...	6.00	43½	......	6.00	6.00	44
....	....	.....	.....	.....	Stenographer.	6.00	49½	......	6.00	6.00	45

[1] Not reported.

[2] Less than 1 year.

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Office employees—Concluded.

Individual No.	Age.	Years of experience.					Changes since Sept 1, 1913 (1 month before first determinations went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Place of employment.			Reason for change.
							Change from—	Change to—	Years in former position.	
46	20	......	......	1	......	......	......	......	......	......
47	20	......	......	½	2	......	......	......	......	......
48	19	......	......	½	1½	......	......	......	......	......
49	18	......	......	1 11/12	......	......	......	......	......	......
50	16	......	......	1/12	......	......	......	......	......	......
51	18	......	......	1/12	......	......	......	......	......	......
52	19	......	......	¾	......	......	......	......	......	......
53	19	......	......	½	......	......	......	......	......	......
54	29	......	......	1/12	½	......	......	......	......	......
55	22	......	......	1½	......	......	Printing office	Department store.	½	(1)
56	18	......	......	1	......	......	......	......	......	......
57	17	......	......	1/12	......	......	......	......	......	......

PORTLAND: Cashiers (tube and floor).

Individual No.	Age.	In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
1	23	......	......	......	......	6	......	......	......	......
2	28	......	......	......	......	10	......	......	......	......
3	23	......	......	......	......	8	......	......	......	......
4	19	......	......	......	......	2½	......	......	......	......
5	20	......	......	......	......	4	......	......	......	......
6	20	......	......	......	......	1½	......	......	......	......
7	19	......	......	......	1½	½	......	......	......	......
8	19	......	......	......	½	1½	......	......	......	......
9	20	......	......	......	......	3	......	......	......	......
10	20	......	......	......	......	2½	......	......	......	......
11	19	......	......	......	......	3	......	......	......	......
12	19	......	......	......	1½	2½	......	......	......	......
13	20	......	......	......	......	1 7/12	......	......	......	......
14	18[1]	......	½	......	......	2	......	......	......	......
15	20	......	......	......	2½	1½	......	......	......	......
16	21	......	......	......	......	4	......	......	......	......
17	20	......	......	......	......	4	......	......	......	......
18	19	......	......	1¼	1¾	2	......	......	......	......
19	22	......	......	......	......	1½	......	......	......	......
20	19	......	......	......	......	1½	......	......	......	......
21	18	2½	......	......	......	½	Dry-goods store	Department store	2½	Laid off because of hour restrictions.
22	19	......	......	1/12	......	2	Department store. Office	Office Department store	1 1/12	Laid off; temporary employment.
23	20	......	......	......	......	½	......	......	......	......
24	18	......	......	......	1½	½	......	......	......	......

[1] Not reported.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Office employees—Concluded.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	Individual No.
....	....	......	......	......	Clerk......	$6.00	47½	......	$6.00	$6.00	46
Messenger...	Clerk......	2	......	......	....do.	6.00	49½	......	6.00	6.00	47
Bundle wrapper.	.....do......	1½	......	......	Mail-order clerk.	6.00	51½	......	6.00	6.00	48
....	....	......	......	......	Clerk.......	6.00	48	......	6.00	6.00	49
....	....	......	......	......	.....do......	6.00	49½	......	6.00	6.00	50
....	....	......	......	......	.....do....	6.00	49½	......	6.00	6.00	51
....	....	......	......	......	.....do.....	6.00	49½	......	6.00	6.00	52
....	....	......	......	......	Auditor.....	6.00	49½	......	6.00	6.00	53
Marker......	Clerk......	½	......	......	Clerk.......	6.00	49½	......	6.00	6.00	54
Compositor..	.....do......	½	$5.50	$6.00	Mail-order clerk.	6.00	49½	......	6.00	6.00	55
....	....	...			Clerk.....	6.00	46½	1	5.54	5.54	56
....	....				Mail-order clerk.	6.00	48	..	6.00	6.00	57

PORTLAND: Cashiers (tube and floor).

Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	Individual No.
					Cashier, tube	$13.84	49½		$13.84	$13.84	1
		..			do....	12.69	49½	.	12.69	12.69	2
		.		....	..do......	10.38	49½	...	10.38	10.38	3
		.	$6.00	$10.11	Cashier, floor	10.11	35½	..	7.25	7.25	4
.		..	8.42	9.81	Cashier, tube	9.81	49½	...	9.81	9.81	5
....			6.00	9.25	Cashier, floor	9.25	49½		9.25	9.25	6
Bundle wrapper	Cashier.	1½	7.50	9.25	do......	9.25	49½	....	9.25	9.25	7
			6.50 7.00	7.00 9.25	do......	9.25	49½	....	9.25	9.25	8
		.	7.00 9.75 10.11	9.75 10.11 9.25	.do......	9.25	49½	.	9.25	9.25	9
		..	6.92	9.25	do......	9.25	50½	....	[1] 8.98	[1] 8.98	10
		.	.....		do ...	9.25	49½	....	9.25	9.25	11
		.	6.42	9.25	do......	9.25	49½	..	9.25	9.25	12
		.	6.00	9.25	do	9.25	49½		9.25	9.25	13
		.	6.00	9.25	do .	9.25	51		9.25	9.25	14
			6.92	9.25	do .	9.25	48	.	9.25	9.25	15
			8.00	9.25	do	9.25	49½		9.25	9.25	16
			8.00	9.25	Cashier, tube	9.25	49½	....	9.25	9.25	17
					Cashier, floor	9.25	48	....	9.25	9.25	18
			6.00	9.25	.do......	9.25	50½	...	[1] 8.15	[1] 8.15	19
			6.50	7.50	. do......	7.50	44½	....	7.50	7.50	20
Saleswoman	Cashier	2½	6.00	7.00	..do.....	7.00	44½	....	7.00	7.00	21
Cashier . Clerk	Clerk Cashier .	2 1/12	6.00	7.00	..do	7.00	45½	1	6.42	6.42	22
.....	.	..	6.00	6.92	do .	6.92	49½	....	6.92	6.92	23
Wrapper	Cashier, tube	1½	6.00	6.92	Cashier, tube	6.92	48		6.92	6.92	24

[1] Deductions made for mistakes in making change.

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Saleswomen—Continued.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
148	20	1½								
149	18	3								
150	28	2¼					Department store.	Department store.	¾	Disagreement with manager.
151	27	4					Store	do	3	Moved from out of town.
152	41	1½								
153	20	2								
154	23	1½								
155	36	7								
156	26	8								
157	25	6								
158	19	1				1				
159	23	5								
160	19	3								
161	20	1½			¾					
162	24	4					General store	Department store.	1½	Moved from out of town.
163	26	(1)					Department store.	Department store.	(1)	Temporary employment.
164	19	2½								
165	23	4								
166	23	1½	1½							
167	23	4					Store	Department store.	3	Moved from out of town.
168	19	1½		⅓						
169	26	9								
170	17	3								
171	50	3								
172	18	½				¾				
173	24	1½								
174	20	¾				2				
175	19	1			1					
176	21	⅚			1					
177	21	⅔			¼					
178	19	⅔				1$\frac{1}{12}$				
179	17	1⅓								
180	25	½								
181	20	1				3				
182	17	3								
183	22	3					Private family	Store	(1)	(1)
184	18	½			1					
185	21	2					Department store.	Department store.	1¾	Laid off; business depression.

[1] Not reported.

[2] In addition, formerly received 2 per cent commission on all sales above a stipulated amount.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Saleswomen—Continued.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						Individual No.
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	
......	......	......	$6.00	$9.23	Patterns....	$9.23	49½	......	$9.23	$9.23	148
......	......	......	7.38	9.23	Corsets......	9.23	49½	......	9.23	9.23	149
......	......	......	8.08	9.23	Art needlework.	9.23	49½	......	9.23	9.23	150
......	......	......	......	......	Children's clothing.	9.23	$41\frac{9}{10}$	2	7.80	7.80	151
......	......	......	......	......	Draperies...	9.23	48	......	8.87	8.87	152
......	......	......	6.92	9.23	Art needlework.	9.23	49½	......	9.23	9.23	153
......	......	......	......	......	Jewelry.....	9.23	49½	......	9.23	9.23	154
......	......	......	......	......	Linings.....	9.23	49½	......	9.23	9.23	155
......	......	......	8.08	9.23	Crockery....	9.23	49½	......	9.23	9.23	156
......	......	......	8.08	9.23	Veilings....	9.23	$41\frac{9}{10}$	......	7.81	7.81	157
Cashier......	Saleswoman	1	6.00	9.23	Toys........	9.23	$41\frac{9}{10}$	2	8.27	8.27	158
......	......	......	......	......	Crockery....	9.23	$45\frac{1}{10}$	1	8.51	8.51	159
......	......	......	6.92	9.23	Waists......	9.23	$45\frac{1}{10}$	......	8.52	8.52	160
......	......	......	6.00	9.23	Books.......	9.23	49½	......	9.23	9.23	161
......	......	......	11.54	9.23	Notions.....	9.23	49½	......	9.23	9.23	162
......	......	......	7.50	9.00	Bargains....	9.00	49½	......	9.00	9.00	163
......	......	......	8.08 9.23	9.23 9.00	....do......	9.00	41¼	2	7.50	7.50	164
......	......	......	[2] 7.50	8.75	Linings.....	8.75	49½	......	8.75	8.75	165
Millinery maker.	Saleswoman	1½	......	......	Millinery....	8.08	49½	......	8.08	8.08	166
......	......	......	......	......	Hosiery.....	8.08	49½	......	8.08	8.08	167
......	......	......	9.30	8.08	Leather.....	8.08	46¼	......	6.94	6.94	168
......	......	......	10.38	[3] 8.08	Muslin underwear.	8.08	44⅜	1	7.18	7.18	169
......	......	......	5.77	8.08	Neckwear...	8.08	40⅜	2	7.41	7.41	170
......	......	......	......	......	Buttons.....	8.08	51½	......	8.08	8.08	171
Cashier......	Saleswoman	$\frac{11}{12}$	6.00	7.50	Stationery..	7.50	49½	......	7.50	7.50	172
......	......	......	7.00	7.50	Notions.....	7.50	49½	......	7.50	7.50	173
Cashier......	Saleswoman.	2	6.00	[4] 7.50	Drugs.......	7.50	49½	......	7.50	9.50	174
Stock girl...	.....do......	1	6.46	7.50	Corsets......	7.50	49½	......	7.50	7.50	175
Bundle wrapper.	.....do......	1	6.00	7.38	Leather.....	7.38	49½	......	7.38	7.38	176
.....do......	.....do......	¼	6.00	7.38	.....do......	7.38	40¾	......	6.11	6.11	177
Cashier......	.....do......	$1\frac{1}{12}$	6.00 11.96	[3] 11.96 7.25	Shoes.......	7.25	49½	......	7.25	7.25	178
......	......	......	6.00	7.00	Art needlework.	7.00	49½	......	7.00	7.00	179
......	......	......	6.00	7.00	Drugs.......	7.00	49½	......	7.00	7.00	180
......	......	......	......	......	Notions.....	7.00	49½	......	7.00	7.00	181
......	......	......	6.00 6.50	6.50 7.00	Candy......	7.00	50	......	7.00	7.00	182
Governess...	Saleswoman.	(1)	6.00	7.00	House furnishings.	7.00	49½	......	7.00	7.00	183
Transfer girl.	.....do......	1	6.00	6.92	Ribbons....	6.92	$45\frac{1}{10}$	1	6.37	6.37	184
......	......	......	[2] 6.00	6.92	Bargains....	6.92	36	......	3.46	3.46	185

---

[3] No longer receives P. M.'s.

[4] At present receives some P. M.'s.

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Saleswomen—Concluded.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
186	20	¼	......	......	2	......	....	....	......	....
187	17	½	......	......	1	......	....	....	......	....
188	19	1½	......	......	......	......	5 and 10 cent store.	Department store.	½	Disagreement with manager.
189	17	¾	......	(1)	......	......	Office........	.....do........	(2)	(2)........
190	19	¾	......	......	2¾	......	....	....	......	....
191	19	¼	......	......	2	......	....	....	......	....
192	21	¾	......	......	......	......	....	....	......	....
193	19	¼	......	......	1¼	......	....	....	......	....
194	19	1½	......	......	......	......	....	....	......	....
195	20	3	......	......	......	......	Store........	Department store.	1/12	Moved from out of town.
196	17	½	......	......	......	......	Department store.	.....do........	¾	Laid off; business depression.
197	18	½	......	......	1	......	....	....	......	....
198	22	½	......	3½	......	......	....	....	......	....
199	26	1/12	......	......	......	......	....	....	......	....
200	17	1/12	......	......	......	......	....	....	......	....
201	15	1/12	......	......	......	......	....	....	......	....
202	23	11/12	......	......	......	......	....	....	......	....
203	22	1/12	......	......	......	......	....	....	......	....
204	17	¼	......	......	1½	......	....	....	......	....
205	32	(1)	......	......	......	......	....	....	......	....
206	41	3	......	......	......	......	Department store.	5 and 10 cent store.	½	Laid off on account of sickness.
207	18	5/12	......	......	11/12	......	....	....	......	....
208	19	½	......	......	2	......	....	....	......	....
209	18	¼	......	......	2 1/12	¾	Department store. Hop picking...	Hop picking... Grocery store..	¾ 1 1/12	Disagreement with employer. Seasonal employment.
210	18	¾	......	......	......	1	Department store.	Department store.	1	(2)........
211	18	1/12	......	......	......	......	....	....	......	....

---

[1] Less than 1 year.

[2] Not reported.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Saleswomen—Concluded.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	Individual No.
Bundle wrapper.	Saleswoman.	2	$6.00	$6.92	Bargains....	$6.92	49½	......	$6.92	$6.92	186
.....do......	.....do......	1	6.00	6.92	Corsets......	6.92	49½	......	6.92	6.92	187
....	....	......	5.00	6.92	Notions.....	6.92	49½	......	6.92	6.92	188
Clerk........	Demonstrator and saleswoman.	(2)	(3)	[3] 6.92	Paper goods.	6.92	$41\frac{3}{16}$	2	5.86	5.86	189
Bundle wrapper.	Saleswoman.	2¾	......	......	Corsets......	6.46	49½	......	6.46	6.46	190
Cash girl....	.....do......	2	6.00	6.46	Handkerchiefs.	6.46	49½	......	6.46	6.46	191
....	....	......	......	......	Art needlework.	6.00	49½	......	6.00	6.00	192
Bundle wrapper.	Saleswoman.	1½	......	......	General.....	6.00	49½	......	6.00	6.00	193
....	....	......	......	......	Gloves......	6.00	49½	......	6.00	6.00	194
....	....	......	......	......	Millinery....	6.00	49½	......	6.00	6.00	195
....	....	......	......	......	Bargain millinery.	6.00	49½	......	6.00	6.00	196
Bundle wrapper.	Saleswoman.	1	......	......	Jewelry.....	6.00	49½	......	6.00	6.00	197
Clerk........	.....do......	3½	6.92	6.00	Patterns....	6.00	49½	......	6.00	6.00	198
....	....	......	......	......	Linens......	6.00	48	......	6.00	6.00	199
....	....	......	......	......	Candies.....	6.00	50	......	6.00	6.00	200
....	....	......	......	......	Notions.....	6.00	47¾	......	5.77	5.77	201
....	....	......	......	......	Infants' wear.	6.00	46¼	......	5.65	5.65	202
....	....	......	......	......	Bargains....	6.00	$45\frac{7}{16}$	1	5.54	5.54	203
Cashier......	Saleswoman.	1½	......	......	Drugs.......	6.00	45¾	1	5.54	5.54	204
....	....	......	......	......	Bargains....	6.00	49½	......	6.00	6.00	205
....	....	......	9.23	6.00	Crockery....	6.00	50	......	6.00	6.00	206
Transfer girl.	Saleswoman.	$\frac{11}{12}$	......	......	Stationery..	6.00	49½	......	6.00	6.00	207
....	....	......	......	(3)	Corsets......	6.00	49½	......	6.00	7.38	208
....	....	......	......	......	Groceries....	[4] 6.00	38	4	4.00	4.00	209
Cashier......	Saleswoman.	1	......	......	Hosiery.....	6.00	36	......	4.38	4.38	210
....	....	......	......	......	.....do......	6.00	36	......	4.38	4.38	211

---

[3] At present receives some P. M.'s.

[4] Dinners in addition.

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Workroom employees.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
1	40	......	7	......	......	......	......	......	......	......
2	(1)	......	15	......	......	......	......	......	......	......
3	50	......	35	......	......	......	......	......	......	......
4	27	10	5	......	......	......	......	......	......	......
5	22	......	6	......	......	......	......	......	......	......
6	35	......	5½	......	......	......	......	......	......	......
7	26	......	5	......	......	......	......	......	......	......
8	(1)	......	20	......	......	......	......	......	......	......
9	42	......	13	......	......	......	......	......	......	......
10	(2)	......	6	......	......	......	......	......	......	......
11	35	......	[3] 7	......	......	......	......	......	......	......
12	23	3½	½	......	......	......	......	......	......	......
13	24	......	4	......	......	......	Millinery store.	Department store.	½	Moved from out of town.
14	17	1	1	......	......	......	......	......	......	......
15	22	......	2	......	......	......	......	......	......	......
16	20	1	3	......	......	......	......	......	......	......
17	21	......	6	......	......	......	......	......	......	......
18	20	......	1½	......	......	......	......	......	......	......
19	22	......	4	......	......	......	......	......	......	......
20	19	......	2½	......	3	......	......	......	......	......
21	22	......	5	......	......	......	......	......	......	......
22	22	......	4	......	......	......	Dry-goods store	Department store.	(2)	Laid off at end of season.
23	27	......	5	......	......	......	Department store.	.....do........	1	.....do........
24	21	......	3	....	½	......	......	......	......	......
25	28	......	6	......	......	......	Department store.	Housekeeper...	1½	Personal..........

[1] Over 40 years of age.
[2] Not reported.
[3] Includes experience as saleswoman.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Workroom employees.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						Individual No.
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	
			$18.46	$19.61	Alteration, cloak and suit.	$19.61	48		$19.61	$19.61	1
					...do...	18.46	49½		18.46	18.46	2
					...do...	15.00	49½		15.00	15.00	3
					Alteration, corsets.	14.00	49½		14.00	14.00	4
			10.00	[1]14.00	Alteration, cloak and suit.	14.00	48		14.00	14.00	5
					Workroom, pennants.	13.84	49½		13.84	13.84	6
					Workroom, carpets.	13.84	49½		13.84	13.84	7
					Workroom, millinery.	13.84	47⅞		13.80	13.80	8
					...do...	13.75	49½		13.75	13.75	9
					Workroom, shades.	12.69	48		12.69	12.69	10
			12.69	11.54	Alteration, cloak and suit.	11.54	49½		11.54	11.54	11
Saleswoman	Mender	3½			Workroom, gloves.	11.54	49½		11.54	11.54	12
					Workroom, millinery.	10.38	49½		10.38	10.38	13
Saleswoman	Alteration hand.	1			Alteration, cloak and suit.	9.25	49½		9.25	9.25	14
			8.25	9.25	Workroom, millinery.	9.25	49½		9.25	9.25	15
			8.00	9.25	...do...	9.25	45¾	1	7.71	7.71	16
					...do...	9.23	49½		9.23	9.23	17
			6.92	9.23	Alteration, cloak and suit.	9.23	49½		9.23	9.23	18
			8.08	9.23	...do...	9.23	49½		9.23	9.23	19
			8.08	9.23	Alteration, corsets.	9.23	49½		9.23	9.23	20
			8.08	9.23	...do...	9.23	49½		9.23	9.23	21
					Workroom, millinery.	9.23	45⅜	1	8.52	8.52	22
			10.00	9.23	...do...	9.23	47⅞		8.87	8.87	23
Alteration hand. Stock girl	Stock girl Alteration hand.	3 ¼			Alteration, cloak and suit.	6.00	49½		6.00	6.00	24
Alteration hand.	Housekeeper.	6	14.00	(²)	Housekeeping.	(²)	(²)	(²)	(²)	(²)	25

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Office employees.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Place of employment. Change from—	Place of employment. Change to—	Years in former position.	Reason for change.
1	(1)			14						
2	(2)			15						
3	26			4						
4	22			5						
5	28			7/12	6	5/12				
6	23			6						
7	18			1		1				
8	20			5						
9	23			5						
10	24			2	2					
11	22			2						
12	20			2	1					
13	21	2		⅙			5 and 10 cent store.	Office	2	Personal
14	18			2						
15	21			5						
16	21			4						
17	24			5						
18	25			5½						
19	20			2						
20	19			1½						
21	25			7	2					
22	23			1½						
23	20			4						
24	18			2						
25	22			¾	3½					
26	24			1½	4½					
27	29			4½						
28	20			1⅙						
29	23			4						
30	20			3	1					
31	19			2½						
32	18			2⅓						
33	16			1⅓						
34	20			⅙	4⅙		Department store.	Newspaper office.	4⅙	Could not obtain legal minimum.
35	21			⅔	3					
36	19	1		½			5 and 10 cent store.	Meat market	1	Personal
37	19	⅙		⅚		1				
38	23			6						
39	20			¼	1¼					
40	19			⅙		2				
41	19			1/12	1 5/12		General store	Department store.	⅔	Moved from out of town.
42	21	2		¾		1¼				
43	19			⅔	2⅓					
44	17			1						
45	17			(4)						

---

[1] Over 30, but under 35 years of age.

[2] Over 35 years of age.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Office employees.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						Individual No.
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	
....	....	......	$15.00	$16.15	Cashier.....	$16.15	49½	......	$16.15	$16.15	1
....	....	......	......	......	Mail-order clerk.	13.84	49½	......	13.84	13.84	2
....	....	......	11.54	12.69	Cashier.....	12.69	53½	......	12.69	12.69	3
....	....	......	11.54	12.69	Bookkeeper.	12.69	49½	......	12.69	12.69	4
Cashier, tube	Cashier, office.	4/12	10.38	11.54	Cashier......	11.54	49½	......	11.54	11.54	5
....	....	......	(3)	(3)	Auditor.....	11.54	49½	......	11.54	11.54	6
....	....	......	7.50 10.25	10.25 11.25	Clerk.......	11.25	49½	......	11.25	11.25	7
....	....	......	9.23	10.38	Auditor.....	10.38	49½	......	10.38	10.38	8
....	....	......	......	......	Complaint clerk.	10.38	49½	......	10.38	10.38	9
....	....	......	......	......	Bill clerk...	10.38	49½	......	10.38	10.38	10
....	....	......	9.00	10.00	.....do.....	10.00	49½	......	10.00	10.00	11
....	....	......	9.34	9.92	Cashier......	9.92	49½	......	9.92	9.92	12
Saleswoman	Stenographer.	2	7.50	9.75	Stenographer.	9.75	45	......	9.75	9.75	13
....	....	......	7.50	9.25	Stock clerk..	9.25	49½	......	9.25	9.25	14
....	....	......	(3)	(3)	Auditor.....	9.23	49½	......	9.23	9.23	15
....	....	......	8.08	9.23	Clerk.......	9.23	49½	......	9.23	9.23	16
....	....	......	......	......	.....do.....	9.23	49½	......	9.23	9.23	17
....	....	......	......	......	Complaint clerk.	9.23	49½	......	9.23	9.23	18
....	....	......	......	......	Bookkeeper.	9.23	48	......	9.23	9.23	19
....	....	......	8.65	9.23	Clerk.......	9.23	48	......	9.23	9.23	20
....	....	......	......	......	Bookkeeper.	9.23	48	......	9.23	9.23	21
....	....	......	6.00	9.23	Bill clerk...	9.23	47½	......	8.87	8.87	22
....	....	......	6.92	9.23	Clerk.......	9.23	49½	......	9.23	9.23	23
....	....	......	6.00	9.23	Bookkeeper.	9.23	49½	......	9.23	9.23	24
....	....	......	8.08	9.23	Clerk.......	9.23	49½	......	9.23	9.23	25
....	....	......	8.54	9.23	.....do.....	9.23	49½	......	9.23	9.23	26
....	....	......	......	......	Bill clerk...	9.23	49½	......	9.23	9.23	27
....	....	......	6.92	9.23	Clerk.......	9.23	49½	......	9.23	9.23	28
....	....	......	8.08	9.23	.....do.....	9.23	49½	......	9.23	9.23	29
....	....	......	6.92	9.23	.....do.....	9.23	49½	......	9.23	9.23	30
....	....	......	......	......	Stenographer.	8.08	49½	......	8.08	8.08	31
....	....	......	......	......	Typist......	8.08	49½	......	8.08	8.08	32
....	....	......	6.00 6.92	6.92 8.08	Stenographer.	8.08	49½	......	8.08	8.08	33
Errand girl..	Stenographer.	4½	6.92	8.00	.....do.....	8.00	45	......	8.00	8.00	34
Cashier.....	Clerk.......	3	7.00	8.00	Clerk.......	8.00	44	1	7.37	7.37	35
Saleswoman	.....do.....	1	5.00	7.50	.....do.......	7.50	(3)	2	6.25	6.25	36
Cashier..... Saleswoman	Saleswoman Bill clerk...	1 ½	6.00	7.50	Bill clerk...	7.50	49½	......	7.50	7.50	37
....	....	......	......	......	Cashier.....	7.38	49½	......	7.38	7.38	38
Stock girl...	Clerk.......	1½	6.50	7.25	Clerk.......	7.25	49½	......	7.25	7.25	39
Cashier.....	.....do.....	2	......	......	.....do.....	6.92	48	......	6.92	6.92	40
Wrapper....	Mail-order clerk.	1 4/12	6.00	6.92	Mail-order clerk.	6.92	49½	......	6.92	6.92	41
....	....	......	......	......	.....do.....	6.50	49½	......	6.50	6.50	42
Wrapper....	Clerk.......	2½	6.00	6.46	.....do.....	6.46	52½	......	6.46	6.46	43
....	....	......	......	......	Bill clerk...	6.00	49½	......	6.00	6.00	44
....	....	......	......	......	Stenographer.	6.00	49½	......	6.00	6.00	45

[3] Not reported.

[4] Less than 1 year.

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM
STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Office employees—Concluded.

Individual No.	Age.	Years of experience.					Changes since Sept 1, 1913 (1 month before first determinations went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
46	20	......	......	1	......	......	......	......	......	......
47	20	......	......	½	2	......	......	......	......	......
48	19	......	......	⅙	1½	......	......	......	......	......
49	18	......	......	1 11/12	......	......	......	......	......	......
50	16	......	......	11/12	......	......	......	......	......	......
51	18	......	......	⅚	......	......	......	......	......	......
52	19	......	......	⅓	......	......	......	......	......	......
53	19	......	......	½	......	......	......	......	......	......
54	29	......	......	1/12	⅙	......	......	......	......	......
55	22	......	......	1½	......	......	Printing office..	Department store.	½	(1) ......
56	18	......	......	1	......	......	......	......	......	......
57	17	......	......	1/12	......	......	......	......	......	......

PORTLAND: Cashiers (tube and floor).

Individual No.	Age.	In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
1	23	......	......	......	......	6	......	......	......	......
2	28	......	......	......	......	10	......	......	......	......
3	23	......	......	......	......	8	......	......	......	......
4	19	......	......	......	......	2½	......	......	......	......
5	20	......	......	......	......	4	......	......	......	......
6	20	......	......	......	......	1½	......	......	......	......
7	19	......	......	......	1½	⅔	......	......	......	......
8	19	......	......	......	⅙	1⅚	......	......	......	......
9	20	......	......	......	......	3	......	......	......	......
10	20	......	......	......	......	2½	......	......	......	......
11	19	......	......	......	......	3	......	......	......	......
12	19	......	......	......	1¼	2¼	......	......	......	......
13	20	......	......	......	......	1 5/12	......	......	......	......
14	18½	......	⅙	......	......	2	......	......	......	......
15	20	......	......	......	2½	1½	......	......	......	......
16	21	......	......	......	......	4	......	......	......	......
17	20	......	......	......	......	4	......	......	......	......
18	19	......	......	1¼	1⅚	2	......	......	......	......
19	22	......	......	......	......	1½	......	......	......	......
20	19	......	......	......	......	1⅔	......	......	......	......
21	18	2½	......	......	......	½	Dry-goods store	Department store.	2½	Laid off because of hour restrictions.
22	19	......	......	1/12	......	2	Department store. Office..........	Office.......... Department store.	1 1/12	Laid off; temporary employment.
23	20	......	......	......	......	¾	......	......	......	......
24	18	......	......	......	1½	½	......	......	......	......

---

[1] Not reported.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Office employees—Concluded.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						Individual No.
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	
....	....	......	......	......	Clerk........	$6.00	47¼	......	$6.00	$6.00	46
Messenger...	Clerk........	2	......	......	.....do......	6.00	49½	......	6.00	6.00	47
Bundle wrapper.	.....do......	1½	......	......	Mail-order clerk.	6.00	51½	......	6.00	6.00	48
....	....	......	......	......	Clerk........	6.00	48	......	6.00	6.00	49
....	....	......	......	......	.....do......	6.00	49½	......	6.00	6.00	50
....	....	......	......	......	.....do......	6.00	49½	......	6.00	6.00	51
....	....	......	......	......	.....do......	6.00	49½	......	6.00	6.00	52
....	....	......	......	......	Auditor.....	6.00	49½	......	6.00	6.00	53
Marker......	Clerk........	¼	......	......	Clerk........	6.00	49½	......	6.00	6.00	54
Compositor..	.....do......	½	$5.88	$6.00	Mail-order clerk.	6.00	49½	......	6.00	6.00	55
....	....	......	......	......	Clerk........	6.00	46¼	1	5.54	5.54	56
....	....	......	......	......	Mail-order clerk.	6.00	48	......	6.00	6.00	57

PORTLAND: Cashiers (tube and floor).

Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	Individual No.
....	....	......	......	......	Cashier, tube	$13.84	49¾	......	$13.84	$13.84	1
....	....	......	......	......	.....do......	12.69	49¾	......	12.69	12.69	2
....	....	......	......	......	.....do......	10.38	49½	......	10.38	10.38	3
....	....	......	$6.00	$10.11	Cashier, floor	10.11	35¼	......	7.25	7.25	4
....	....	......	8.42	9.81	Cashier, tube	9.81	49¾	......	9.81	9.81	5
....	....	......	6.00	9.25	Cashier, floor	9.25	49½	......	9.25	9.25	6
Bundle wrapper.	Cashier.....	1½	7.50	9.25	.....do......	9.25	49½	......	9.25	9.25	7
....	....	......	6.50 7.00	7.00 9.25	.....do......	9.25	49½	......	9.25	9.25	8
....	....	......	7.00 9.75 10.11	9.75 10.11 9.25	.....do......	9.25	49½	......	9.25	9.25	9
....	....	......	6.92	9.23	.....do......	9.23	50¼	......	[2] 8.98	[2] 8.98	10
....	....	......	......	......	.....do......	9.23	49½	......	9.23	9.23	11
....	....	......	6.92	9.23	.....do......	9.23	49½	......	9.23	9.23	12
....	....	......	6.00	9.23	.....do......	9.23	49 9/10	......	9.23	9.23	13
....	....	......	6.00	9.23	.....do......	9.23	51	......	9.23	9.23	14
....	....	......	6.92	9.23	.....do......	9.23	48	......	9.23	9.23	15
....	....	......	8.08	9.23	.....do......	9.23	49½	......	9.23	9.23	16
....	....	......	8.08	9.23	Cashier, tube	9.23	49¾	......	9.23	9.23	17
....	....	......	......	......	Cashier, floor	9.23	48	......	9.23	9.23	18
....	....	......	6.00	9.23	.....do......	9.23	50¼	......	[2] 8.15	[2] 8.15	19
....	....	......	6.00	7.50	.....do......	7.50	49½	......	7.50	7.50	20
Saleswoman.	Cashier......	2½	6.00	7.00	.....do......	7.00	49½	......	7.00	7.00	21
Cashier...... Clerk........	Clerk........ Cashier......	2 1/12	6.00	7.00	.....do......	7.00	45¼	1	6.42	6.42	22
....	....	......	6.00	6.92	.....do......	6.92	49½	......	6.92	6.92	23
Wrapper....	Cashier, tube	1½	6.00	6.92	Cashier, tube	6.92	48	......	6.92	6.92	24

[2] Deductions made for mistakes in making change.

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Cashiers (tube and floor)—Concluded.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
25	20	2/3				1/4	Dry-goods store	Department store.	1/12	Better position
							Department store.	do	1/4	Because of part-time work.
26	19					1/12				
27	18			1/4		1/3	Laundry office.	Department store.	1/4	Laid off
28	20		1			1/2	Wholesale millinery.	do	1	Better position
29	18					1	Dry-goods store	do	1/4	Failure of firm
30	20	1/4			1/4	1 2/3				
31	18					1				
32	20				1/4	1/4				
33	20					1/4				
34	17			1		1/2	Office	Department store.	1	Lost position through illness.
35	16					1				
36	18					1				
37	16					1/12				
38	17					1/12				
39	18	1/4				1	Dry-goods store	Department store.	1/4	Laid off; business depression.
40	17					1/12				
41	21				1	1/2	Department store.	Department store.	1	Personal reasons
42	16					3/4	do	do	11/12	Moved from out of town.
43	17					1/12				
44	21	1				1/12	Grocery store	Department store.	1	Moved from out of town.
45	17					1/2				
46	17				2	1/12	Dry-goods store	Department store.	1	Better position
47	17		1			1/2	Wholesale millinery.	do	1	do

---

[1] Deductions made for mistakes in making change.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Cashiers (tube and floor)—Concluded.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						Individual No.
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	
Saleswoman	Cashier.....	¼	$6.00 8.18	$8.18 6.00	Cashier, floor	$6.00	49½	......	$6.00	$6.00	25
....	....	......	......	......	.....do......	6.00	49½	......	6.00	6.00	26
Bookkeeper.	Cashier......	½	5.00	6.00	.....do......	6.00	49½	......	6.00	6.00	27
Millinery maker.	.....do......	1	4.15	6.00	.....do......	6.00	49½	......	6.00	6.00	28
....	....	......	......	......	Cashier, tube	6.00	51½	......	6.00	6.00	29
....	....	......	......	......	Cashier, floor	6.00	49½	......	6.00	6.00	30
....	....	......	......	......	.....do......	6.00	49½	......	6.00	6.00	31
....	....	......	......	......	.....do......	6.00	49½	......	6.00	6.00	32
....	....	......	......	......	.....do......	6.00	48	......	6.00	6.00	33
Clerk.......	Cashier......	1	......	......	.....do......	6.00	49½	......	6.00	6.00	34
....	....	......	......	......	.....do......	6.00	48	......	6.00	6.00	35
....	....	......	......	......	.....do......	6.00	49½	......	6.00	6.00	36
....	....	......	......	......	.....do......	6.00	49½	......	6.00	6.00	37
....	....	......	......	......	.....do......	6.00	49½	......	6.00	6.00	38
Saleswoman.	Cashier......	¼	......	......	.....do......	6.00	48	......	6.00	6.00	39
....	....	......	......	......	.....do......	6.00	48	......	6.00	6.00	40
Bundle wrapper.	Cashier......	1	4.61	6.00	.....do......	6.00	49½	......	6.00	6.00	41
....	....	......	......	......	.....do......	6.00	49½	......	[1] 5.88	[1] 5.88	42
....	....	......	......	......	.....do......	6.00	49½	......	5.77	5.77	43
Saleswoman.	Cashier......	1	......	......	.....do......	6.00	47¼	......	5.75	5.75	44
....	....	......	......	......	.....do......	6.00	45⅝	1	5.50	5.50	45
Transfer girl.	Cashier......	2	......	......	.....do......	6.00	46⅞	1	5.50	5.50	46
Millinery maker.	.....do......	1	4.15	6.00	.....do......	6.00	36$\frac{3}{16}$	3	4.61	4.61	47

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

PORTLAND: Bundle wrappers, errand girls, etc.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
1	25	9			1¼					
2	19				3					
3	20				4					
4	19				1⅔					
5	20				4					
6	20				3					
7	17				1½					
8	18				1/12		Wholesale millinery. Department store.	Department store. Telephone company.	½ 1/12	Left because of irregularity of employment. Discharged.
9	18				⅔					
10	18				1/12					
11	17				2					
12	19				1					
13	18				2					
14	18				1⅓					
15	18				1					
16	17				¾					
17	16				½					
18	17	1/12			½					
19	17				7/12					
20	17				1/12					
21	18				⅓[1]					
22	18				1¼					
23	16				½					
24	17				1½					
25	18				¾					
26	14				½					
27	17				1					
28	17				⅔					
29	18				2½					
30	16				⅔					
31	16				⅔					
32	18	½			2⅔		5 and 10 cent store.	Department store.	½	Moved from out of town.
33	18				1½					
34	16			1/12	½					
35	17				1/12					
36	18				½	1⅔				
37	16				1					
38	19				1 5/12					

---

[1] Occupation changes with demands of work.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Continued.

PORTLAND: Bundle wrappers, errand girls, etc.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	Individual No.
					Stock girl	$9.23	49½		$9.23	$9.23	1
			$6.00	$9.23	do	9.23	49½		9.23	9.23	2
					do	9.23	49½		9.23	9.23	3
			8.08	9.23	Alteration attendant.	9.23	49½		9.23	9.23	4
			6.00	9.23	Errand girl	9.23	49½		9.23	9.23	5
			6.92 7.50	7.50 9.23	Bundle wrapper.	9.23	51		9.23	9.23	6
			6.00	6.92	Stock girl	6.92	49½		6.92	6.92	7
Millinery apprentice. Stock girl	Stock girl Telephone operator.	$\frac{3}{12}$ $\frac{1}{12}$	1.50 6.00 7.50	6.00 7.50 6.60	Telephone operator.	6.60	32	2	5.50	5.50	8
					Transfer girl.	6.46	37½		5.79	5.79	9
					Bundle wrapper.	6.00	49½		6.00	6.00	10
					Errand girl	6.00	48		6.00	6.00	11
					Tag maker	6.00	49½		6.00	6.00	12
					Bundle wrapper.	6.00	50		6.00	6.00	13
					do	6.00	49½		6.00	6.00	14
					Errand girl	6.00	49½		6.00	6.00	15
					Transfer girl.	6.00	49½		6.00	6.00	16
					Bundle wrapper.	6.00	49½		6.00	6.00	17
Saleswoman.	Bundle wrapper.	$\frac{1}{12}$			do	6.00	49½		6.00	6.00	18
					do	6.00	49½		6.00	6.00	19
					do	6.00	50½		6.00	6.00	20
					Transfer girl.	6.00	49½		6.00	6.00	21
Bundle wrapper.	Stock girl	½			Stock girl	6.00	49½		6.00	6.00	22
					Bundle wrapper.	6.00	49½		6.00	6.00	23
					do	6.00	49½		6.00	6.00	24
					do	6.00	49½		6.00	6.00	25
					Transfer girl.	6.00	49½		6.00	6.00	26
(1)	(1)	(1)			Stock girl	6.00	49½		6.00	6.00	27
					Bundle wrapper.	6.00	49½		6.00	6.00	28
			4.61	6.00	Errand girl	6.00	49½		6.00	6.00	29
					Bundle wrapper.	6.00	49½		6.00	6.00	30
					do	6.00	49½		6.00	6.00	31
Saleswoman.	Button clamper.	½			Button clamper.	6.00	50		6.00	6.00	32
Transfer girl.	Stock girl	1			Stock girl	6.00	49½		6.00	6.00	33
					Transfer girl.	6.00	49½		6.00	6.00	34
					Bundle wrapper.	6.00	47½	1	5.54	5.54	35
Cashier	Stock girl	$1\frac{2}{3}$	5.00	6.00	Stock girl	6.00	49½		6.00	6.00	36
			5.00	6.00	Bundle wrapper.	6.00	49½		6.00	6.00	37
Bundle wrapper.	Stock girl and saleswoman.	1			Stock girl	6.00	$41\frac{3}{16}$	2	5.08	5.08	38

TABLE I.—CHANGES IN THE INDUSTRIAL STATUS OF WOMEN EM STORES SINCE THE MINIMUM-WAGE DETER

SALEM.

Individual No.	Age.	Years of experience.					Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.			
							Place of employment.			
		In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand girl, stock girl, etc.	As cashier (tube or floor).	Change from—	Change to—	Years in former position.	Reason for change.
1	44	......	7	......	......	......	......	......	......	......
2	43	......	[1] 4½	......	......	......	......	......	......	......
3	24	6	......	......	......	......	......	......	......	......
4	21	4	......	......	......	......	......	......	......	......
5	19	¾	......	......	......	......	5 and 10 cent store.	Office..........	½	Personal..........
6	32	9½	......	......	......	......	Office..........	School..........	¼	.....do..........
7	45	10	......	......	......	......	......	......	......	......
8	27	8½	......	......	......	......	......	......	......	......
9	31	6	......	......	......	......	......	......	......	......
10	27	6	......	......	......	......	......	......	......	......
11	36	4	......	......	......	......	......	......	......	......
12	26	3	......	......	......	......	Dry-goods store	Dry-goods store	2 1/12	Disagreement with employer.
13	23	7	......	......	......	......	......	......	......	......
14	20	4½	......	......	......	......	......	......	......	......
15	28	4	......	......	......	......	......	......	......	......
16	64	12	......	......	......	......	......	......	......	......
17	25	5	......	......	......	......	Dry-goods store	Dry-goods store	½	Disagreement with employer.
18	26	6	......	......	......	......	.....do..........	Specialty store.	([2])	Closed business....
19	20	4	......	......	......	......	......	......	......	......
20	24	4	......	......	......	......	......	......	......	......
21	18	4¼	......	......	......	......	......	......	......	......
22	([4])	3	......	......	......	......	Dry-goods store	5 and 10 cent store.	¼	Disagreement with employer.
23	26	[3] 5	......	......	......	......	......	......	......	......
24	18	......	......	......	......	1½	......	......	......	......
25	21	⅚	......	......	......	......	......	......	......	......
26	18	1	......	......	......	......	......	......	......	......
27	18	1/12	......	......	......	......	......	......	......	......
28	21	4/12	......	......	......	......	......	......	......	......
29	21	1 11/12	......	¼	......	......	Dry-goods store	Hardware store	1½	Better position....
30	30	......	5	......	......	......	Specialty store.	Beauty parlor..	1/12	Temporary employment.
31	19	⅓	......	......	......	......	......	......	......	......
32	22	⅙	......	......	......	......	5 and 10 cent store.	Sanitarium....	¼	Personal..........

[1] Sells and helps fit.
[2] Not reported.
[3] In addition formerly received 5 per cent commission on all sales.
[4] Early twenties.

PLOYED IN PORTLAND AND SALEM DEPARTMENT AND OTHER RETAIL MINATIONS WENT INTO EFFECT—Concluded.

SALEM.

Changes since Sept. 1, 1913 (1 month before first determination went into effect), of individuals having any change in place of employment, occupation, or rate of pay.					Data for last pay-roll period in October, 1914.						
Occupation.			Weekly rate of pay.								
Change from—	Change to—	Years in former occupation.	Former rate.	Present rate.	Department or occupation.	Rate of pay per week.	Actual weekly hours worked.	Full days lost during 2 wks.	Weekly wages.	Weekly earnings (including P. M.'s and commissions).	Individual No.
....	....	......	$21.25	$15.00	Alteration, hand.	$15.00	48	......	$15.00	$15.00	1
....	....	......	......	......	Fitter and saleswoman.	15.00	50	......	15.00	15.00	2
....	....	......	16.00	13.13	Saleswoman, suits.	13.13	10	10	2.50	2.75	3
....	....	......	9.00 11.00	11.00 12.00	Saleswoman, hosiery and underwear.	12.00	52½	......	12.00	12.00	4
Saleswoman	Stenographer	¾	6.00	(²)	Teacher.....	11.54	30	......	11.54	11.54	5
Stenographer	Teacher.....	½	(³)	11.54							
....	....	......	......	......	Saleswoman, ribbons, etc.	11.54	55½	......	11.54	11.54	6
....	....	......	......	......	.....do......	11.54	45 7/10	1	10.65	(³)	7
....	....	......	......	......	.....do......	10.50	51¼	......	10.50	10.50	8
....	....	......	......	......	.....do......	10.38	49¼	......	10.38	10.38	9
....	....	......	......	......	.....do......	10.38	49½	......	10.38	10.38	10
....	....	......	9.50	10.00	.....do......	10.00	52	......	10.00	10.75	11
....	....	......	³6.92	9.81	.....do......	9.81	50	......	9.81	9.81	12
....	....	......	9.00	9.50	.....do......	9.50	52½	......	9.50	9.50	13
....	....	......	9.00	9.50	.....do......	9.50	48	......	9.50	9.50	14
....	....	......	......	......	.....do......	9.23	51¼	......	9.23	9.23	15
....	....	......	......	......	.....do......	9.23	49	......	9.23	9.23	16
....	....	......	8.00 6.92	6.92 9.00	.....do......	9.00	33 1/10	3	5.89	5.89	17
....	....	......	6.00	9.00	.....do......	9.00	48	......	9.00	9.00	18
....	....	......	......	......	.....do......	9.00	49¼	......	9.00	9.00	19
....	....	......	6.92	8.51	.....do......	8.51	49½	......	8.51	10.36	20
....	....	......	7.00 7.50	7.50 8.50	.....do......	8.50	52½	......	8.50	9.02	21
....	....	......	......	......	.....do......	8.25	52½	......	8.25	8.25	22
....	....	......	7.50	8.25	Workroom and saleswoman.	8.25	27	6	4.13	4.13	23
....	....	......	7.50	8.00	Cashier......	8.00	48	......	8.00	8.00	24
....	....	......	6.00 7.50	7.50 8.00	Saleswoman	8.00	52½	......	8.00	8.00	25
....	....	......	6.00 6.50	6.50 7.00	....do......	7.00	52½	......	7.00	7.00	26
....	....	......	6.00 6.50	6.50 7.00	....do......	7.00	51	......	7.00	7.00	27
....	....	......	6.00 6.50	⁶6.50 ⁶7.00	....do......	7.00	52½	......	7.00	7.00	28
Saleswoman	Bookkeeper.	......	9.00	14.00	Clerk........	14.00	51	......	14.00	14.00	29
Millinery maker.	Beauty parlor assistant.	5	8.25	6.00	Beauty parlor assistant.	6.00	44½	1	5.26	5.25	30
....	....	......	......	......	Saleswoman	6.00	52½	......	6.00	6.00	31
Saleswoman	Nurse.......	¼	6.00	⁷1.85	Nurse.......	⁷1.85	53	......	⁷1.85	⁷1.85	32

---

[5] Also includes experience in millinery workroom.

[6] No longer receives commission.

[7] Board and lodging not included.

TABLE II.—WOMEN WHO WERE NOT EMPLOYED IN OCTOBER, 1914, BUT DETERMINATIONS

PORTLAND.

Individual No.	Age.	Years of experience— In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand or stock girl.	As cashier (tube or floor).	Place of previous employment.	Years in service.
1	31	7	....	1	....	....	Department store	6½
2	23	....	....	2 1/12	2	....	do	4 1/12
3	30	1½	....	....	....	....	Specialty store	1½
4	23	....	....	4½	....	....	5 and 10 cent store	3
5	31	7	....	....	....	....	Department store	⅙
6	19	3	....	....	....	....	do	3
7	23	4½	....	....	....	....	do	4½
8	(1)	1	....	....	....	....	do	¾
9	18	....	....	....	1½	1½	Dry-goods store	3
10	19	1½	....	....	1	....	Department store	(1)
11	21	....	....	3 11/12	1/12	....	Dry-goods store	4
12	19	....	....	....	1	2	Department store	3⅙
13	17	....	....	1	....	....	Specialty store	1
14	19	¾	....	....	....	....	Department store	¾
15	20	....	....	....	....	[2] 4½	do	4½
16	19	....	....	....	3	....	do	3
17	19	....	....	....	1 1/12	....	do	1 1/12
18	20	....	....	....	....	2¼	do	2¼
19	16	....	....	....	....	1/12	do	1/12
20	20	1/12	....	....	....	....	5 and 10 cent store	1/12
21	18	2	....	....	....	2	Department store	3
22	20	11/12	....	....	4	....	do	⅚
23	20	....	....	....	1½	....	do	1½
24	17	....	....	....	1 1/12	....	do	1 1/12
25	19	....	....	....	1 1/12	....	do	1
26	21	....	5/12	....	2½	....	do	2 5/12
27	19	1/12	....	....	....	....	5 and 10 cent store	5/12

SALEM.

Individual No.	Age.	In selling department.	In alteration or millinery department.	In office (clerical).	As cash girl, bundle wrapper, errand or stock girl.	As cashier (tube or floor).	Place of previous employment.	Years in service.
1	44	....	17	....	....	....	Dry-goods store	3
2	26	....	....	2	....	....	Specialty store	2
3	19	2½	....	....	....	....	Dry-goods store	2½
4	18	1	....	¼	....	....	5 and 10 cent store	1
5	20	1/12	....	....	....	....	do	(4)
6	20	1	....	....	....	....	do	¾

[1] Not reported.

[2] Includes experience as wrapper.

WHO HAD BEEN EMPLOYED PRIOR TO THE TIME THE MINIMUM-WAGE WENT INTO EFFECT.

PORTLAND.

Reason for change of occupation.	Data for last pay-roll period in previous place of employment.					Individual No.
	Department or occupation.	Rate of pay per week.	Actual weekly hours.	Weekly wages.	Weekly earnings.	
Personal	Selling	$12.69	49½	$12.69	$12.69	1
do	Office	12.50	54	12.50	12.50	2
do	Selling	12.00	50	12.00	12.00	3
do	Office	11.54	50	11.54	11.54	4
Laid off; disagreement with employer.	Selling	10.61	49½	10.61	10.61	5
Disagreement with employer	do	9.25	49½	9.25	9.25	6
Personal	do	9.23	49½	9.23	9.23	7
do	do	9.23	49½	9.23	9.23	8
do	Cashier	9.23	48	9.23	9.23	9
Discharged; tardiness	Selling	9.23	49	9.23	9.23	10
Personal	Office	8.08	48	8.08	8.08	11
Disagreement with employer	Cashier	8.08	49½	8.08	8.08	12
Laid off; business dull	Office	8.00	50	8.00	8.00	13
do	Selling	7.38	49½	7.38	7.38	14
Personal	Cashier	6.92	49½	6.92	6.92	15
Laid off; firm refused to grant legal minimum.	Bundle wrapper	6.92	18½	2.66	2.66	16
do	do	6.00	18½	2.11	2.11	17
do	Cashier	6.00	49½	([3])	([3])	18
Laid off; errors in slips	do	6.00	48	6.00	6.00	19
Personal	Selling	6.00	50	6.00	6.00	20
Laid off; firm refused to grant legal minimum.	do	6.00	49½	6.00	6.00	21
do	do	6.00	49½	6.00	6.00	22
do	Bundle wrapper	6.00	49½	6.00	6.00	23
Laid off; business dull	do	6.00	49½	6.00	6.00	24
Personal	do	6.00	49½	6.00	6.00	25
Bundle wrapper's apprenticeship complete; refused to be saleswoman.	Workroom	6.00	49½	6.00	6.00	26
Discharged; conversing during business hours.	Selling	5.00	56	5.00	5.00	27

SALEM.

Reason for change of occupation.	Department or occupation.	Rate of pay per week.	Actual weekly hours.	Weekly wages.	Weekly earnings.	Individual No.
Personal	Workroom	$15.00	55	$15.00	$15.00	1
Disagreement with employer	Office	9.00	51½	9.00	9.00	2
Personal	Selling	8.50	52½	8.50	8.50	3
do	do	7.00	52½	7.00	7.00	4
Temporary employment	do	6.00	12½	1.50	1.50	5
Personal	do	5.00	52½	5.00	5.00	6

[3] Loss for the period exceeds wages by $2.

[4] 3 days.

APPENDIX A.—ACT CREATING INDUSTRIAL WELFARE COMMISSION OF OREGON.

ACTS OF 1913.

CHAPTER 62.—*An act to protect the lives and health and morals of women and minor workers, and to establish an industrial welfare commission and define its powers and duties, and to provide for the fixing of minimum wages and maximum hours and standard conditions of labor for such workers, and to provide penalties for violation of this act.*

Whereas the welfare of the State of Oregon requires that women and minors should be protected from conditions of labor which have a pernicious effect on their health and morals, and inadequate wages and unduly long hours and insanitary conditions of labor have such a pernicious effect; therefore, be it enacted * * *:

SECTION 1. It shall be unlawful to employ women or minors in any occupation within the State of Oregon for unreasonably long hours; and it shall be unlawful to employ women or minors in any occupation within the State of Oregon under such surroundings or conditions—sanitary or otherwise—as may be detrimental to their health or morals; and it shall be unlawful to employ women in any occupation within the State of Oregon for wages which are inadequate to supply the necessary cost of living and to maintain them in health; and it shall be unlawful to employ minors in any occupation within the State of Oregon for unreasonably low wages.

SEC. 2. There is hereby created a commission composed of three commissioners, which shall be known as the "Industrial Welfare Commission"; and the word "commission" as hereinafter used refers to and means said "industrial welfare commission"; and the word "commissioner" as hereinafter used refers to and means a member of said "industrial welfare commission." Said commissioners shall be appointed by the governor. The governor shall make his first appointments hereunder within thirty days after this bill becomes a law; and of the three commissioners first appointed, one shall hold office until January first, nineteen hundred and fourteen, and another shall hold office until January first, nineteen hundred and fifteen, and the third shall hold office until January first, nineteen hundred and sixteen; and the governor shall designate the terms of each of said three first appointees. On or before the first day of January of each year, beginning with the year nineteen hundred and fourteen, the governor shall appoint a commissioner to succeed the commissioner whose term expires on said first day of January; and such new appointee shall hold office for the term of three years from said first day of January. Each commissioner shall hold office until his successor is appointed and has qualified; and any vacancy that may occur in the membership of said commission shall be filled by appointment by the governor for the unexpired portion of the term in which such vacancy occurs. A majority of said commissioners shall constitute a quorum to transact business, and the act or decision of such a majority shall be deemed the act or decision of said commission; and no vacancy shall impair the right of the remaining commissioners to exercise all the powers of said commission. The governor shall, so far as practicable, so select and appoint said commissioners—both the original appointments and all subsequent appointments—that at all times one of said commissioners shall represent the interests of the employing class and one of said commissioners shall represent the interests of the employed class and the third of said commissioners shall be one who will be fair and impartial between employers and employees and work for the best interests of the public as a whole.

SEC. 3. The first commissioners appointed under this act shall, within twenty days after their appointment, meet and organize said commission by electing one of their number as chairman thereof and by choosing a secretary of said commission; and by or before the tenth day of January of each year, beginning with the year nineteen hundred and fourteen, said commissioners shall elect a chairman and choose a secretary for the ensuing year. Each such chairman and each such secretary shall hold his or her position until his or her successor is elected or chosen; but said commission may at any time remove any secretary chosen hereunder. Said secretary shall not be a commissioner; and said secretary shall perform said duties as may be prescribed and receive such salary as may be fixed by such commission. None of said commissioners shall receive any salary as such. All authorized and necessary expenses of said commission and all authorized and necessary expenditures incurred by said commission shall be audited and paid as other State expenses and expenditures are audited and paid.

SEC. 4. Said commission is hereby authorized and empowered to ascertain and declare, in the manner hereinafter provided, the following things: (a) Standards of hours of employment for women or for minors and what are unreasonably long hours for women or for minors in any occupation within the State of Oregon; (b) standards of conditions of labor for women or for minors in any occupation within the State of Oregon, and what surroundings or conditions—sanitary or otherwise—are detrimental to the health or morals of women or of minors in any such occupation; (c) standards of minimum wages for women in any occupation within the State of Oregon and what wages are inadequate to supply the necessary cost of living to any such women workers and to maintain them in good health; and (d) standards of minimum wages for minors in any occupation within the State of Oregon, and what wages are unreasonably low for any such minor workers.

SEC. 5. Said commission shall have full power and authority to investigate and ascertain the wages and the hours of labor and the conditions of labor of women and minors in the different occupations in which they are employed in the State of Oregon; and said commission shall have full power and authority, either through any authorized representative or any commissioner to inspect and examine any and all books and pay rolls and other records of any employer of women or minors that in any way appertain to or have a bearing upon the questions of wages or hours of labor or conditions of labor of any such women workers or minor workers in any of said occupations and to require from any such employer full and true statements of the wages paid to and the hours of labor of and the conditions of labor of all women and minors in his employment.

SEC. 6. Every employer of women or minors shall keep a register of the names of all women and all minors employed by him, and shall, on request, permit any commissioner or any authorized representative of said commission to inspect and examine such register. The word "minor," as used in this act, refers to and means any person of either sex under the age of eighteen years, and the word "women," as used in this act, refers to and means a female person of or over the age of eighteen years.

SEC. 7. Said commission may hold meetings for the transaction of any of its business at such times and places as it may prescribe; and said commission may hold public hearings at such times and places as it deems fit and proper for the purpose of investigating any of the matters it is authorized to investigate by this act. At any such public hearing any person interested in the matter being investigated may appear and testify. Said commission shall have power to subpœna and compel the attendance of any witness at any such public hearing or at any session of any conference called and held as hereinafter provided; and any commissioner shall have power to administer an oath to any witness who testifies at any such public hearing or at any such session of any conference. All witnesses subpœnaed by said commission shall be paid the same mileage and per diem as are allowed by law to witnesses in civil cases before the circuit court of Multnomah County.

SEC. 8. If, after investigation, said commission is of opinion that any substantial number of women workers in any occupation are working for unreasonably long hours or are working under surroundings or conditions detrimental to their health or morals or are receiving wages inadequate to supply them with the necessary cost of living and maintain them in health, said commission may call and convene a conference for the purpose and with the powers of considering and inquiring into and reporting on the subject investigated by said commission and submitted by it to such conference. Such conference shall be composed of not more than three representatives of the employers in said occupation and of an equal number of the representatives of the employees in said occupation and of not more than three disinterested persons representing the public and of one or more commissioners. Said commission shall name and appoint all the members of such conference and designate the chairman thereof. Said commission shall present to such conference all information and evidence in the possession or under the control of said commission which relates to the subject of the inquiry by such conference; and said commission shall cause to be brought before such conference any witnesses whose testimony said commission deems material to the subject of the inquiry by such conference. After completing its consideration of and inquiry into the subject submitted to it by said commission, such conference shall make and transmit to said commission a report containing the findings and recommendations of such conference on said subject. Accordingly as the subject submitted to it may require, such conference shall, in its report, make recommendations on any or all of the following questions concerning the particular occupation under inquiry, to wit: (*a*) Standards of hours of employment for women workers and what are unreasonably long hours of employment for women workers; (*b*) standards of conditions of labor for women workers and what surroundings or conditions—sanitary or otherwise—are detrimental to the health or morals of women workers; (*c*) standards of minimum wages for women workers and what wages are inadequate to supply the necessary cost of living to women workers and maintain them in health. In its recommendations on a question of wages such conference shall, where it appears that any substantial number of women workers in the occupation under inquiry are being paid by piece rates as distinguished from time rate recommend minimum piece rates as well as minimum time rate and recommend such minimum piece rates as will in its judgment be adequate to supply the necessary cost of living to women workers of average ordinary ability and maintain them in health; and in its recommendations on a question of wages such conference shall, when it appears proper or necessary, recommend suitable minimum wages for learners and apprentices and the maximum length of time any woman worker may be kept at such wages as a learner or apprentice, which said wages shall be less than the regular minimum wages recommended for the regular women workers in the occupation under inquiry. Two-thirds of the members of any such conference shall constitute a quorum; and the decision or recommendation or report of such a two-thirds on any subject submitted shall be deemed the decision or recommendations or report of such conference.

SEC. 9. Upon receipt of any report from any conference said commission shall consider and review the recommendations contained in said report; and said commission may approve any or all of said recommendations or disapprove any or all of said recommendations; and said commission may resubmit to the same conference or a new conference any subject covered by any recommendations so disapproved. If said commission approves any recommendations contained in any report from any conference, said commission shall publish notice, not less than once a week for four successive weeks in not less than two newspapers of general circulation published in Multnomah County, that it will on a date and at a place named in said notice hold a public meeting at which all persons in favor of or opposed to said recommendations will be given a hearing; and after said publication of said notice and said meeting, said commission may, in its discretion, make and render such an order as may be proper or necessary to adopt such recommendations and carry the same into effect and require all employers in the occupation affected thereby to observe and comply with such recommendations and said order. Said order shall become effective in sixty days after it is made and rendered and shall be in full force and effect on and after the sixtieth day following its making and rendition. After said order becomes effective and while it is effective, it shall be unlawful for any employer to violate or disregard any of the terms or provisions of said order or to employ any woman worker in any occupation covered by said order for longer hours or under different surroundings or conditions or at lower wages than are authorized or permitted by said order. Said commission shall, as far as is practicable, mail a copy of any such order to every employer affected thereby; and every employer affected by any such order shall keep a copy thereof posted in a conspicuous place in each room in his establishment in which women workers work. No such order of said commission shall authorize or permit the employment of any woman for more hours per day or per week than the maximum now fixed by law.

SEC. 10. For any occupation in which only a minimum time-rate wage has been established, said commission may issue to a woman physically defective or crippled by age or otherwise a special license authorizing her employment at such wage less than said minimum time-rate wage as shall be fixed by said commission and stated in said license.

SEC. 11. Said commission may at any time inquire into wages or hours or conditions of labor of minors employed in any occupation in this State and determine suitable wages and hours and conditions of labor for such minors. When said commission has made such determination, it may issue an obligatory order in the manner provided for in section nine of this act, and after such order is effective, it shall be unlawful for any employer in said occupation to employ a minor at less wages or for more hours or under different conditions of labor than are specified or required in or by said order; but no such order of said commission shall authorize or permit the employment of any minor for more hours per day or per week than the maximum now fixed by law or at any times or under any conditions now prohibited by law.

SEC. 12. The word "occupation" as used in this act shall be so construed as to include any and every vocation and pursuit and trade and industry. Any conference may make a separate inquiry into and report on any branch of any occupation; and said commission may make a separate order affecting any branch of any occupation. Any conference may make different recommendations and said commission may make different orders for the same occupation in different localities in the State when, in the judgment of such conference or said commission, different conditions in different localities justify such different recommendations or different orders.

SEC. 13. Said commission shall, from time to time, investigate and ascertain whether or not employers in the State of Oregon are observing and complying with its orders and take such steps as may be necessary to have prosecuted such employers as are not observing or complying with its orders.

SEC. 14. The "commissioner of labor statistics and inspector of factories and workshops" and the several officers of the "board of inspection of child labor" shall, at any and all times, give to said commission any information or statistics in their respective offices that would assist said commission in carrying out this act and render such assistance to said commission as may not be inconsistent with the performance of their respective official duties.

SEC. 15. Said commission is hereby authorized and empowered to prepare and adopt and promulgate rules and regulations for the carrying into effect of the foregoing provisions of this act, including rules and regulations for the selection of members and the mode of procedure of conferences.

SEC. 16. All questions of fact arising under the foregoing provisions of this act shall, except as otherwise herein provided, be determined by said commission, and there shall be no appeal from the decision of said commission on any such question of fact, but there shall be a right of appeal from said commission to the Circuit Court of the State of Oregon for Multnomah County from any ruling or holding on a question of law included in or embodied in any decision or order of said commission, and, on the same question of law, from said circuit court to the Supreme Court of the State of Oregon. In all such appeals the attorney general shall appear for and represent said commission.

SEC. 17. Any person who violates any of the foregoing provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than $25 nor more than $100 or by imprisonment in the county jail for not less than ten days nor more than three months or by both such fine and imprisonment in the discretion of the court.

SEC. 18. Any employer who discharges or in any other manner discriminates against any employees because such employee has testified, or is about to testify, or because such employer believes that said employee may testify, in any investigation or proceedings under or relative to this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than $25 nor more than $100.

SEC. 19. If any woman worker shall be paid by her employer less than the minimum wage to which she is entitled under or by virtue of an order of said commission, she may recover in a civil action the full amount of her said minimum wage less any amount actually paid to her by said employer, together with such attorneys' fees as may be allowed by the court and any agreement for her to work for less than such minimum wage shall be no defense to such action.

SEC. 20. Said commission shall, on or before the first day of January of the year nineteen hundred and fifteen and of each second year thereafter, make a succinct report to the governor and legislature of its work and the proceedings under this act during the preceding two years.

SEC. 21. There is hereby appropriated out of the general fund of the State of Oregon the sum of $3,500 per annum, or so much thereof as may be necessary per annum, to carry into effect the provisions of this act and to pay the expenses and expenditures authorized by or incurred under this act.

Filed in the office of secretary of state February 17, 1913.

APPENDIX B.—DETERMINATIONS OF INDUSTRIAL WELFARE COMMISSION OF OREGON.

ORDER No. 1.

1. No girl under the age of 18 years shall be employed in any manufacturing or mercantile establishment, millinery, dressmaking or hair-dressing shop, laundry, hotel or restaurant, telephone or telegraph establishment, or office in the State of Oregon more than 8 hours and 20 minutes during any one day or more than 50 hours in any one week.

2. No girl under the age of 18 shall be employed in any one of the above-named occupations after the hour of 6 o'clock p. m.

3. A minimum wage of $1 a day shall be established for girls between the ages of 16 and 18 years working in the above-mentioned occupations except as otherwise arranged by the commission in the cases of apprentices and learners.

Said order shall become effective from and after October 4, 1913.

After such order is effective it shall be unlawful for any employer in the State of Oregon affected thereby to fail to observe and comply therewith, and any person who violates said order shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than $25 nor more than $100, or by imprisonment in the county jail for not less than 10 days nor more than three months, or by both such fine and imprisonment, in the discretion of the court.

ORDER No. 2.

No person, firm, corporation, or association owning or operating any manufacturing establishment in the city of Portland, Oreg., shall employ any woman in said establishment for more than 9 hours a day, or 54 hours a week, or fix, allow, or permit for any woman employee in said establishment a noon lunch period of less than 45 minutes in length; or employ any experienced adult woman worker, paid by time rates of payment, in said establishment at a weekly wage of less than $8.64, any lesser amount being hereby declared inadequate to supply the necessary cost of living to such women factory workers and to maintain them in health.

Said order shall become effective from and after November 10, 1913.

ORDER No. 3.

No person, firm, or corporation owning or conducting any mercantile establishment in the city of Portland, Oreg., shall pay to any experienced adult woman worker a wage less than $9.25 a week; nor shall any such person, firm, or corporation owning or conducting any mercantile establishment in the city of Portland, Oreg., employ any woman worker in such mercantile establishment more than 8 hours and 20 minutes in any day, and 50 hours in any week, or after the hour of 6 o'clock in the afternoon of any day.

Said order shall become effective from and after November 23, 1913.

ORDER No. 4.

1. No person, firm, corporation, or association shall employ any experienced adult woman in any office or at office work in the city of Portland for more than 51 hours in any week nor at a wage rate of less than $40 a month.

2. The following classes of work are included under this ruling as office work:

Stenographers, bookkeepers, typists, billing clerks, filing clerks, cashiers (moving-picture theaters, restaurants, amusement parks, ice-cream stands, etc.), checkers, invoicers, comptometer operators, auditors, and all kinds of clerical work.

Said order shall become effective from and after February 2, 1914.

ORDER NO. 5.

(1) No person, firm, or corporation shall employ any experienced adult woman in any industry in the State of Oregon, paid by time rate of payment, at a weekly wage rate of less than $8.25 a week, any lesser amount being hereby declared inadequate to supply the necessary cost of living to such women workers and to maintain them in health.

(2) Nor shall any such person, firm, or corporation employ women in any industry in the State of Oregon for more than 54 hours a week.

(3) Nor shall any such person, firm, or corporation pay inexperienced adult women workers employed by time rate of payment at a rate of wages less than $6 a week. And the maximum length of time such workers may be considered inexperienced in any industry shall not exceed one year.

(4) No person, firm, or corporation owning or conducting any mercantile, manufacturing, or laundry establishment in the State of Oregon shall employ women workers in such establishment later than the hour of 8.30 o'clock p. m. of any day. This hour of dismissal does not apply to telephone and telegraph companies, confectionery establishments, restaurants, and hotels.

Said order shall become effective from and after February 7, 1914.

ORDER IN REGARD TO PREAPPRENTICESHIP PERIOD IN MILLINERY AND DRESSMAKING TRADES.

Under date of August 31, 1914, the commission issued the following order (but not as a numbered order) authorizing employment for a preapprenticeship period at a special lower rate in the millinery and dressmaking trades:

PORTLAND, OREG., *August 31, 1914.*

TO THE MILLINERS AND DRESSMAKERS OF THE STATE OF OREGON:

The industrial welfare commission on August 28 decided, in view of the circumstances surrounding the apprenticeship conditions in the millinery and dressmaking trades, to permit a preapprenticeship period of one month to women and girls who wish to learn either of these trades. As this month is given that the ability of the learners may be tested and their fitness for the trade discovered, they may be engaged for a wage rate of less than $6 a week, but after the end of the 30 days' period the apprentice must be paid at least $6 a week. The regular apprenticeship period of 12 months, as allowed by I. W. C. Order No. 5, will date from the end of the month's trial.

This preapprenticeship period of 30 days will be allowed only to those women and girls who have had no previous experience at dressmaking or millinery. Every learner who is taken on under this regulation must have a special permit from this office before she can begin work. A duplicate of this permit will be sent to the employer, which duplicate must be returned with the original when the preapprenticeship time is completed. Those women who have had slight experience at either of the trades, but who have not had a full year, must be employed as regular apprentices at $6 a week and will not receive a permit for a trial month.

O

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES } WHOLE 180
BUREAU OF LABOR STATISTICS } NUMBER

WOMEN IN INDUSTRY SERIES: NO. 7

THE BOOT AND SHOE INDUSTRY IN MASSACHUSETTS AS A VOCATION FOR WOMEN

OCTOBER, 1915

WASHINGTON
GOVERNMENT PRINTING OFFICE
1915

SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

[The publication of the Annual and Special Reports and of the bimonthly Bulletin has been discontinued, and since July, 1912, a Bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These Bulletins are numbered consecutively in each series and also carry a consecutive whole number, beginning with No. 101. A list of the series, together with the individual Bulletins falling under each, is given below. A list of the Reports and Bulletins of the Bureau issued prior to July 1, 1912, will be furnished on application.]

Wholesale Prices.
No. 1. Wholesale prices, 1890 to 1912. (Bul. No. 114.)
No. 2. Wholesale prices, 1890 to 1913. (Bul. No. 149.)
No. 3. Index numbers of wholesale prices. (Bul. No. 173.)
Retail Prices and Cost of Living.
No. 1. Retail prices, 1890 to 1911: Part I. (Bul. No. 105: Part I.)
Retail prices, 1890 to 1911: Part II. (Bul. No. 105: Part II.)
No. 2. Retail prices, 1890 to June, 1912: Part I. (Bul. No. 106: Part I.)
Retail prices, 1890 to June, 1912: Part II. (Bul. No. 106: Part II.)
No. 3. Retail prices, 1890 to August, 1912. (Bul. No. 108.)
No. 4. Retail prices, 1890 to October, 1912. (Bul. No. 110.)
No. 5. Retail prices, 1890 to December, 1912. (Bul. No. 113.)
No. 6. Retail prices, 1890 to February, 1913. (Bul. No. 115.)
No. 7. Sugar prices, from refiner to consumer. (Bul. No. 121.)
No. 8. Retail prices, 1890 to April, 1913. (Bul. No. 125.)
No. 9. Wheat and flour prices, from farmer to consumer. (Bul. No. 130.)
No. 10. Retail prices, 1890 to June, 1913. (Bul. No. 132.)
No. 11. Retail prices, 1890 to August, 1913. (Bul. No. 136.)
No. 12. Retail prices, 1890 to October, 1913. (Bul. No. 138.)
No. 13. Retail prices, 1890 to December, 1913. (Bul. No. 140.)
No. 14. Retail prices, 1907 to December, 1914. (Bul. No. 156.)
No. 15. Butter prices, from producer to consumer. (Bul. No. 164.)
Wages and Hours of Labor.
No. 1. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912. (Bul. No. 128.)
No. 2. Wages and hours of labor in the lumber, millwork, and furniture industries, 1890 to 1912. (Bul. No. 129.)
No. 3. Union scale of wages and hours of labor, 1907 to 1912. (Bul. No. 131.)
No. 4. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912. (Bul. No. 134.)
No. 5. Wages and hours of labor in the cigar and clothing industries, 1911 and 1912. (Bul. No. 135.)
No. 6. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912. (Bul. No. 137.)
No. 7. Union scale of wages and hours of labor, May 15, 1913. (Bul. No. 143.)
No. 8. Wages and regularity of employment in the dress and waist industry of New York City. (Bul. No. 146.)
No. 9. Wages and regularity of employment in the cloak, suit, and skirt industry. (Bul. No. 147.)
No. 10. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913. (Bul. No. 150.)
No. 11. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1912. (Bul. No. 151.)
No. 12. Wages and hours of labor in the lumber, millwork, and furniture industries, 1907 to 1913. (Bul. No. 153.)
No. 13. Wages and hours of labor in the boot and shoe and hosiery and underwear industries, 1907 to 1913. (Bul. No. 154.)
No. 14. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913. (Bul. No. 161.)
No. 15. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913. (Bul. No. 163.)
No. 16. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1913. (Bul. No. 168.)
No. 17. Union scale of wages and hours of labor, May 1, 1914. (Bul. No. 171.)
No. 18. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1914. (Bul. No. 177.)
No. 19. Wages and hours of labor in the boot and shoe industry, 1907 to 1914. (Bul. No. 178.)

(See also third page of cover.)

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . WHOLE NUMBER 180

WOMEN IN INDUSTRY SERIES: NO. 7

THE BOOT AND SHOE INDUSTRY IN MASSACHUSETTS AS A VOCATION FOR WOMEN

OCTOBER, 1915

WASHINGTON
GOVERNMENT PRINTING OFFICE
1915

CONTENTS.

Page.

Chapter I.—Purpose and methods of the study.......... 5–13
  Present extent of the industry.......... 6
  Distribution of Massachusetts shoe towns.......... 6, 7
  Beginning and growth of the industry in Massachusetts.......... 7–10
  Women in the industry.......... 10, 11
  Methods of inquiry.......... 11–13
Chapter II.—The shoe centers and the shoe workers.......... 14–31
  Lynn and the North Shore shoe towns.......... 14–25
    Women shoe workers in Lynn.......... 17–19
    Married women in Lynn shoe factories.......... 19–22
    Living conditions of women shoe workers in Lynn.......... 22–25
  Brockton and the Plymouth County shoe towns.......... 25–29
    Women shoe workers in Brockton.......... 26, 27
    Married women in Brockton shoe factories.......... 27, 28
    Living conditions of shoe workers in Brockton.......... 28, 29
  Boston as a shoe center.......... 29, 30
  Marlboro and the Middlesex County shoe towns.......... 30, 31
Chapter III.—Nature and conditions of women's work in shoe factories.......... 32–57
  Technical processes.......... 32–42
    Cutting.......... 33, 34
    Stitching.......... 34–36
    Making soles and heels.......... 36, 37
    Lasting-room processes.......... 37–39
    Finishing department.......... 39, 40
    Packing department.......... 40
    Division of work between men and women.......... 40, 41
    List of chief technical processes used by women shoe workers.......... 41, 42
  Methods of learning the trade.......... 42–52
    Learning in a trade school.......... 43–46
    Learning in the shoe factory.......... 47–52
  Hours of labor.......... 52, 53
  Working conditions and sanitation.......... 53–57
Chapter IV.—Wages of women shoe workers.......... 58–74
  Introduction.......... 58
  Sources of information.......... 58, 59
  Wages and earnings as shown by returns of manufacturers.......... 59–63
  Wages as shown by pay rolls.......... 63, 64
  Classification of workers and methods of payment.......... 64, 65
  Handworkers and their wages.......... 65–67
  Machine operators and their wages.......... 67–71
  Causes for variations in earnings.......... 71–74

Page.
Chapter V.—Annual earnings of women shoe workers........ 75–92
  Conditions affecting earnings........ 75–87
    Seasonal fluctuation in numbers........ 75–81
    Instability of wage earners........ 81–87
  Annual earnings of steady workers........ 87–92
Chapter VI.—Special conditions affecting the earnings and efficiency of women workers in shoe factories........ 93–102
  Sex as affecting earnings........ 93–95
  Nationality as related to industrial success........ 95, 96
  Employment of minors as related to women's earnings in shoe factories... 96–98
  Relation of women to labor unions........ 98–102
    Unions in Brockton and its vicinity........ 98, 99
    Unions in Lynn and its vicinity........ 99–102
Chapter VII.—Retrospect and prospect........ 103–105

This report is the result of an investigation made in the year 1911–12 by Miss Ruth Evans, Miss Florence Murphy, and Miss Abigail Steere, fellows of the department of research of the Women's Educational and Industrial Union, Boston, Mass., under the supervision of Miss May Allinson, associate director. During the following year the material collected was compiled and edited by Miss Lila Ver Planck North, assistant director. The entire work was carried on under the direction of Dr. Susan M. Kingsbury, director of the department of research.

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 180. WASHINGTON. OCTOBER, 1915.

THE BOOT AND SHOE INDUSTRY IN MASSACHUSETTS AS A VOCATION FOR WOMEN.

CHAPTER I.—PURPOSE AND METHODS OF THE STUDY.

The present investigation of conditions in the Massachusetts shoe industry was undertaken with the hope of obtaining first-hand knowledge with regard to certain aspects of an occupation long held to be exceptionally desirable for wage-earning women. The work of women has been so long an important factor in the evolution of shoemaking that the industry has special interest in connection with inquiries as to the advantages a long-established factory trade offers to women at the present time. The number employed emphasizes the importance of the study. More women work at shoemaking in Massachusetts than at any other factory trade except the textile industries. The influence of the shoe-factory work upon women is far-reaching not only in any special community but throughout the State. To understand something of this influence it is necessary to make a brief survey of the industry as a whole. The causes behind certain of its conditions are often obscure, but as often powerfully influential. They lie in the general organization of the industry, in its methods of production, and especially in the variation found in the character, population, and social ideals of its chief centers. Further, in the inevitable discussion of hours, work, and wages there must not be ignored the query as to whether the conditions encountered by women in this occupation conduce to their moral and social well-being and tend to promote their fitness for their vocation as home makers for the State.

PRESENT EXTENT OF THE INDUSTRY.

Shoemaking is an industry of no small or recent growth; from its humble beginnings in the first half of the seventeenth century it has come to employ in the United States, according to the census of 1910, 185,000 people and to show an invested capital of nearly $200,000,000.[1] Massachusetts alone employed in the year 1911 an average number of 80,000 workers, representing nearly half the total number for the country at large. If to these figures be added those for workers employed in the closely allied boot and shoe stock and shoe findings trades we have a total of nearly 90,000. This first place as a shoe-producing State has been maintained by Massachusetts for nearly three hundred years; and throughout two of these centuries women have been closely connected with the industry.

DISTRIBUTION OF MASSACHUSETTS SHOE TOWNS.

The modern status of shoe manufacturing in Massachusetts acquires a living interest if the statistics of the industry are for a time neglected and we turn to a map of the State upon which all its shoemaking towns are marked. As the traveler eastward from New York or Albany crosses, at Springfield, the Connecticut River and follows through the southern section of Worcester County the sinuous course of the Boston & Albany Railroad, shoemaking towns are found scattered along the main line or on branches leading to the north or south. A small cluster is located in the narrowed southern end of Middlesex County up to within about 15 miles of Boston. In the thickly settled suburban district lying west and southwest of the "Hub," shoe towns are lacking, but within the area inclosed by a five-mile circle drawn from the statehouse as a center, there are, besides Boston itself, five other towns in which are one or more shoe factories. The seaboard counties north and south of Massachusetts Bay constitute, however, the true shoe-town area. On the north Essex, Suffolk, and the eastern portion of Middlesex counties are thickly dotted with shoe-manufacturing cities and towns as far as the mouth of the Merrimac; on the south a large irregular cluster straggles from the coast of Norfolk County down through Plymouth and Bristol counties to reach its southern limit at New Bedford, more than 50 miles from Boston. Outside of these distinctly marked areas a few factories are operated in five or six widely separated towns situated in the northern section of the State, with North Adams in the Berkshire Hills at the end of the line. Not a single shoe factory marks the course of the Connecticut River through the State, while the people living in the great southwestern section buy but make no shoes.

---

[1] Thirteenth Census, Vol. X, Manufactures, p. 697.

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . WHOLE NUMBER 180
WOMEN IN INDUSTRY SERIES: NO. 7

THE BOOT AND SHOE INDUSTRY IN MASSACHUSETTS AS A VOCATION FOR WOMEN

OCTOBER, 1915

WASHINGTON
GOVERNMENT PRINTING OFFICE
1915

CONTENTS.

Page.

Chapter I.—Purpose and methods of the study 5–13
  Present extent of the industry 6
  Distribution of Massachusetts shoe towns 6, 7
  Beginning and growth of the industry in Massachusetts 7–10
  Women in the industry 10, 11
  Methods of inquiry 11–13
Chapter II.—The shoe centers and the shoe workers 14–31
  Lynn and the North Shore shoe towns 14–25
    Women shoe workers in Lynn 17–19
    Married women in Lynn shoe factories 19–22
    Living conditions of women shoe workers in Lynn 22–25
  Brockton and the Plymouth County shoe towns 25–29
    Women shoe workers in Brockton 26, 27
    Married women in Brockton shoe factories 27, 28
    Living conditions of shoe workers in Brockton 28, 29
  Boston as a shoe center 29, 30
  Marlboro and the Middlesex County shoe towns 30, 31
Chapter III.—Nature and conditions of women's work in shoe factories 32–57
  Technical processes 32–42
    Cutting 33, 34
    Stitching 34–36
    Making soles and heels 36, 37
    Lasting-room processes 37–39
    Finishing department 39, 40
    Packing department 40
    Division of work between men and women 40, 41
    List of chief technical processes used by women shoe workers 41, 42
  Methods of learning the trade 42–52
    Learning in a trade school 43–46
    Learning in the shoe factory 47–52
  Hours of labor 52, 53
  Working conditions and sanitation 53–57
Chapter IV.—Wages of women shoe workers 58–74
  Introduction 58
  Sources of information 58, 59
  Wages and earnings as shown by returns of manufacturers 59–63
  Wages as shown by pay rolls 63, 64
  Classification of workers and methods of payment 64, 65
  Handworkers and their wages 65–67
  Machine operators and their wages 67–71
  Causes for variations in earnings 71–74

Page.
Chapter V.—Annual earnings of women shoe workers........................ 75-92
  Conditions affecting earnings.................................. 75-87
    Seasonal fluctuation in numbers.............................. 75-81
    Instability of wage earners.................................. 81-87
  Annual earnings of steady workers.............................. 87-92
Chapter VI.—Special conditions affecting the earnings and efficiency of women workers in shoe factories.. 93-102
  Sex as affecting earnings...................................... 93-95
  Nationality as related to industrial success................... 95, 96
  Employment of minors as related to women's earnings in shoe factories... 96-98
  Relation of women to labor unions.............................. 98-102
    Unions in Brockton and its vicinity.......................... 98, 99
    Unions in Lynn and its vicinity.............................. 99-102
Chapter VII.—Retrospect and prospect............................. 103-105

This report is the result of an investigation made in the year 1911-12 by Miss Ruth Evans, Miss Florence Murphy, and Miss Abigail Steere, fellows of the department of research of the Women's Educational and Industrial Union, Boston, Mass., under the supervision of Miss May Allinson, associate director. During the following year the material collected was compiled and edited by Miss Lila Ver Planck North, assistant director. The entire work was carried on under the direction of Dr. Susan M. Kingsbury, director of the department of research.

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 180. WASHINGTON. OCTOBER, 1915.

THE BOOT AND SHOE INDUSTRY IN MASSACHUSETTS AS A VOCATION FOR WOMEN.

CHAPTER I.—PURPOSE AND METHODS OF THE STUDY.

The present investigation of conditions in the Massachusetts shoe industry was undertaken with the hope of obtaining first-hand knowledge with regard to certain aspects of an occupation long held to be exceptionally desirable for wage-earning women. The work of women has been so long an important factor in the evolution of shoemaking that the industry has special interest in connection with inquiries as to the advantages a long-established factory trade offers to women at the present time. The number employed emphasizes the importance of the study. More women work at shoemaking in Massachusetts than at any other factory trade except the textile industries. The influence of the shoe-factory work upon women is far-reaching not only in any special community but throughout the State. To understand something of this influence it is necessary to make a brief survey of the industry as a whole. The causes behind certain of its conditions are often obscure, but as often powerfully influential. They lie in the general organization of the industry, in its methods of production, and especially in the variation found in the character, population, and social ideals of its chief centers. Further, in the inevitable discussion of hours, work, and wages there must not be ignored the query as to whether the conditions encountered by women in this occupation conduce to their moral and social well-being and tend to promote their fitness for their vocation as home makers for the State.

Page.
Chapter V.—Annual earnings of women shoe workers........................ 75–92
  Conditions affecting earnings.. 75–87
    Seasonal fluctuation in numbers.................................... 75–81
    Instability of wage earners.. 81–87
  Annual earnings of steady workers.................................... 87–92
Chapter VI.—Special conditions affecting the earnings and efficiency of women workers in shoe factories.. 93–102
  Sex as affecting earnings.. 93–95
  Nationality as related to industrial success......................... 95, 96
  Employment of minors as related to women's earnings in shoe factories... 96–98
  Relation of women to labor unions.................................... 98–102
    Unions in Brockton and its vicinity................................ 98, 99
    Unions in Lynn and its vicinity.................................... 99–102
Chapter VII.—Retrospect and prospect................................... 103–105

This report is the result of an investigation made in the year 1911–12 by Miss Ruth Evans, Miss Florence Murphy, and Miss Abigail Steere, fellows of the department of research of the Women's Educational and Industrial Union, Boston, Mass., under the supervision of Miss May Allinson, associate director. During the following year the material collected was compiled and edited by Miss Lila Ver Planck North, assistant director. The entire work was carried on under the direction of Dr. Susan M. Kingsbury, director of the department of research.

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 180. WASHINGTON. OCTOBER, 1915.

THE BOOT AND SHOE INDUSTRY IN MASSACHUSETTS AS A VOCATION FOR WOMEN.

CHAPTER I.—PURPOSE AND METHODS OF THE STUDY.

The present investigation of conditions in the Massachusetts shoe industry was undertaken with the hope of obtaining first-hand knowledge with regard to certain aspects of an occupation long held to be exceptionally desirable for wage-earning women. The work of women has been so long an important factor in the evolution of shoemaking that the industry has special interest in connection with inquiries as to the advantages a long-established factory trade offers to women at the present time. The number employed emphasizes the importance of the study. More women work at shoemaking in Massachusetts than at any other factory trade except the textile industries. The influence of the shoe-factory work upon women is far-reaching not only in any special community but throughout the State. To understand something of this influence it is necessary to make a brief survey of the industry as a whole. The causes behind certain of its conditions are often obscure, but as often powerfully influential. They lie in the general organization of the industry, in its methods of production, and especially in the variation found in the character, population, and social ideals of its chief centers. Further, in the inevitable discussion of hours, work, and wages there must not be ignored the query as to whether the conditions encountered by women in this occupation conduce to their moral and social well-being and tend to promote their fitness for their vocation as home makers for the State.

PRESENT EXTENT OF THE INDUSTRY.

Shoemaking is an industry of no small or recent growth; from its humble beginnings in the first half of the seventeenth century it has come to employ in the United States, according to the census of 1910, 185,000 people and to show an invested capital of nearly $200,000,000.[1] Massachusetts alone employed in the year 1911 an average number of 80,000 workers, representing nearly half the total number for the country at large. If to these figures be added those for workers employed in the closely allied boot and shoe stock and shoe findings trades we have a total of nearly 90,000. This first place as a shoe-producing State has been maintained by Massachusetts for nearly three hundred years; and throughout two of these centuries women have been closely connected with the industry.

DISTRIBUTION OF MASSACHUSETTS SHOE TOWNS.

The modern status of shoe manufacturing in Massachusetts acquires a living interest if the statistics of the industry are for a time neglected and we turn to a map of the State upon which all its shoemaking towns are marked. As the traveler eastward from New York or Albany crosses, at Springfield, the Connecticut River and follows through the southern section of Worcester County the sinuous course of the Boston & Albany Railroad, shoemaking towns are found scattered along the main line or on branches leading to the north or south. A small cluster is located in the narrowed southern end of Middlesex County up to within about 15 miles of Boston. In the thickly settled suburban district lying west and southwest of the "Hub," shoe towns are lacking, but within the area inclosed by a five-mile circle drawn from the statehouse as a center, there are, besides Boston itself, five other towns in which are one or more shoe factories. The seaboard counties north and south of Massachusetts Bay constitute, however, the true shoe-town area. On the north Essex, Suffolk, and the eastern portion of Middlesex counties are thickly dotted with shoe-manufacturing cities and towns as far as the mouth of the Merrimac; on the south a large irregular cluster straggles from the coast of Norfolk County down through Plymouth and Bristol counties to reach its southern limit at New Bedford, more than 50 miles from Boston. Outside of these distinctly marked areas a few factories are operated in five or six widely separated towns situated in the northern section of the State, with North Adams in the Berkshire Hills at the end of the line. Not a single shoe factory marks the course of the Connecticut River through the State, while the people living in the great southwestern section buy but make no shoes.

---

[1] Thirteenth Census, Vol. X, Manufactures, p. 697.

TABLE 1.—SHOE FACTORIES AS DISTRIBUTED IN MASSACHUSETTS TOWNS AND COUNTIES IN 1911.

[Based on Trade Directory.]

County.	Number of towns with shoe factories.	Number of factories.
Essex	14	307
Plymouth	7	56
Middlesex	14	42
Worcester	12	23
Suffolk	3	22
Norfolk	9	17
Bristol	3	3
Berkshire	1	2
Hampshire	1	1
Franklin	1	1
Total	65	474

BEGINNING AND GROWTH OF THE INDUSTRY IN MASSACHUSETTS.

The very large number of towns and factories noted in Table 1 in the four seaboard counties, Essex, Suffolk, Norfolk, and Plymouth, is directly related to the historical beginning and growth of shoe manufacturing in Massachusetts. The industry appears to have begun in Salem, where Thomas Beard and Isaac Rickerman settled in 1629, coming on the *Mayflower* on her second voyage. They were shoemakers by trade, and are the earliest shoemakers of record in this country. Another pioneer shoemaker was Philip Kertland, who settled in Lynn in 1636, and who became so notably successful as a producer and instructor in the trade that 15 years later he was largely supplying Boston's demand for shoes, employing in his home shop a number of journeymen "cordwainers," as the shoemakers were then termed. Others instructed by him took up the work in Salem and adjacent towns. In Boston, meanwhile, James Everell built up a large business in making shoes to order, employing and teaching journeymen for nearly 50 years. A contemporary in the same trade was William Copp, in North Boston, for whom is named Copp's Hill. The rapid growth in importance of this distinctive New England industry is shown by the incorporation by the general court as early as 1648 of the "Boston Company of Shoemakers."

Shoemaking retained for 100 years after its establishment in the new land the methods which had been in use for centuries in Europe. The shoemaker sat on his bench or "seat," cut with a knife the upper and sole leather from the hide, stitched the upper with awl and waxed end, hammered the sole on a lapstone, and sewed it on by hand, turning out a complete shoe with few tools other than hammer, awl, and knife and the wooden shoulder stick with which he finished the edges.

The fact that shoemaking was, after its early itinerant period, carried on in the home or in a shop closely connected with the home, made it natural for women to take a share in a process which required the needle and thread as well as the cutting board and the knife. In the seaboard towns along the North Shore of Massachusetts women worked at stitching and binding the shoes while their men were out on the fishing grounds; and in the long stormy days of winter the whole family united in finishing the ordered product or preparing certain patterns as stock.

The latter part of the seventeenth century ushered in the beginnings of the factory system. "Shoes being made by the size, the constant complaint was that sizes were unfairly marked; no two shoemakers had the same measure. * * * William Newman, of Stamford, Conn., had a measuring stick which he had brought from England, which it was decided by the general court was a fair measure between buyer and seller, and in 1658 this was made the standard. Simple as this would seem, it worked a revolution in the business. Once a standard of sizes was fixed upon individual orders and measures were no longer depended upon solely, but enterprising shoemakers began to make up a stock of shoes. By 1700 the more enterprising had gathered groups of workmen around them and began what would be fairly called the manufacture of boots and shoes. The entire shoe was made under one roof, but no longer by one man."[1] In Randolph, Abington, Holbrook, and Quincy, in the Old Colony; in Lynn, Salem, Topsfield, Georgetown, and Haverhill, in Essex County; in Stoneham, Reading, and Marlboro, in Middlesex County; and in Milford, Brookfield, and Spencer, in Worcester County, shoemakers hired a few of their fellows and gathered them into what was then called a shop, one cutting the leather, others fitting or sewing the uppers together, and still others putting the uppers and soles together, or 'bottoming' them, in much the same fashion as that used when each shoemaker worked individually.

"The partial division of labor was a success at once, and soon the uppers were sent out to women and children to be stitched together and bound. Little 'eight-by-ten' shops were scattered all through the 'South Shore,' as Plymouth County was then termed, as well as through Essex, Middlesex, and Worcester counties. The shoemaker with his sons, and perhaps a neighbor, made a 'team' which took the fitted uppers and the understock from the manufacturer in a near-by town and bottomed the shoes or boots. One did the lasting, another the pegging (the boys, and sometimes the girls, were taught this branch), another the trimming, and still another the edge setting; but all was done by hand. When the shoes were made they were taken to the factory, which, although considered at that time a wonder, was little larger than the offices of some of our modern establishments. Here they were finished, packed in wooden boxes, and sent to the market."[1]

---

[1] Ethelbert Stewart, Old-Time Shoemakers, in Chicago Daily News, 1902.

Lynn soon became the center of this system, and sent out the cut parts of shoes to small shops throughout Massachusetts to be made up. In Lynn the cutters and other skilled workmen got 60 to 75 cents a day. The heels were wooden; the soles were sometimes fastened with copper brads but usually were sewed, the heavier ones welted, the lighter ones turned. By 1754 the piece price had risen to 60 cents a pair, and wages by the week were $3.25. This was probably for the less skilled operatives, however.

In 1795 Lynn had 200 master shoemakers and 600 journeymen and apprentices. Their combined output was 300,000 pairs of women's shoes a year.

In the winter time, on many of the farms surrounding shoe centers, shoes were bound and stitched by the women at home and lasted and pegged by the men. All the work was handwork; even the wooden peg, invented in 1815—the first machine-made part of the shoe—was driven by hand, the shoe-pegging machine patented a few years later meeting with little patronage. Many of the shoe centers, stretching from Boston east through Middlesex and Worcester counties and south through Plymouth County, date from this period, and have been making shoes from the early part of the eighteenth century. An extraordinary census taken in Massachusetts in 1837 showed 15,366 women employed by establishments making boots and shoes, while but 14,757 women were in the cotton mills. Few of the women shoe workers were, however, in the factory itself; their work was done at home.

When in 1846 Elias Howe, of Boston, invented the sewing machine, he doubtless had in mind relief for the busy housewife, but some years later his invention was utilized in the shoemaking shops for the stitching of uppers. The various processes of shoemaking were now for the first time gathered under one roof, and the "factory" system as applied to this particular manufacture was complete. The heavy machines worked by foot, sometimes by horsepower, could be managed only by men. This fact for a time threw women out of the industry, since the work on uppers, for more than a century largely turned over to them, was now done in the factory by men. Among women long accustomed to depend on this work as a means of supplementing personal or family income the distress was acute and was emphasized on the platform and in the pulpit of the time as among the social disasters consequent on the introduction of machinery into manufacture. "Hannah at the window binding

shoes" was as shamefully underpaid as was her sister stitching shirts, but Hannah without shoes to bind was not paid at all. With the gradual perfection of the single-process system in the factories through progressive inventions dividing and simplifying each step in the building of a shoe, women slowly regained a place in the trade. By the year 1860 the stitching machines were universally attached to power belts driven by water or steam, and as they no longer required great strength in manipulation they could be worked by girls or women, who would take lower wages than men. Numerous supplementary and preparatory processes were evolved demanding little skill, but nimble motions; these were taken from the well-paid worker and turned over to girls and untrained women.

---

[1] Wm. B. Rice, One Hundred Years of American Commerce, Vol. II, 1895.

WOMEN IN THE INDUSTRY.

The increase in the percentage of women employed in shoe factories throughout the United States can be shown only for recent decades owing to the unspecialized statistical methods formerly employed; but the last 40 years, though showing no phenomenal gain in the total number of wage earners employed, have been marked by a steady growth in the proportion of women workers.

TABLE 2.—NUMBER AND PER CENT OF WAGE EARNERS OF EACH SEX IN THE SHOE INDUSTRY IN THE UNITED STATES, 1880 TO 1910.

[Source: Reports of the United States Census Office: 1880, Vol. II; 1890, Vol. XI; 1900, Vol. IX; 1910, Vol. X.]

Year.	Total number.	Adult males.		Adult females.		Minors (under 16).	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1880	111.152	82,547	74.3	25,122	22.6	3,483	3.1
1890	133.690	91,406	68.3	39,849	29.8	2,435	1.8
1900	142,922	91,215	63.8	47,186	33.0	4,521	3.2
1910	211.507	132,411	62.6	70,457	33.3	8,639	4.1

The ratios for the same period in Massachusetts do not differ materially from those for the country at large. In the 40 years succeeding the beginning of the Civil War in 1861 the gain in numbers of women shoe workers was rapid. Not only in the Revolution but in the Civil War the Army shoes were made in Massachusetts; women compelled to eke out the scanty pay sent home from the Army stitched at the shoes destined for husbands and brothers in the field. The habit of working in the shoe factory was not broken by the close of the war; in 1870, 20 per cent of the shoe workers in Massachusetts were women and girls; in 1900 this had grown to nearly 32 per cent. In the past ten or twelve years, though there has been a large growth in actual numbers, the proportion of women has shown little increase. The subjoined table gives recent figures for the proportion of women wage earners in all branches of the Massachu-

setts shoe industry in 1910 and 1911, and illustrates the comparatively slight changes from year to year.

TABLE 3.—NUMBER AND PER CENT OF WAGE EARNERS OF EACH SEX IN MASSACHUSETTS SHOE INDUSTRY IN 1910 AND 1911.

[Source: Massachusetts Bureau of Statistics, Twenty-fifth and Twenty-sixth Annual Reports on the Statistics of Manufactures, 1910 and 1911.]

Industry.	1910					1911				
	Male.		Female.		Total.	Male.		Female.		Total.
	Number.	Per cent.	Number.	Per cent.		Number.	Per cent.	Number.	Per cent.	
Boots and shoes	50,536	65.6	26,464	34.4	77,000	51,949	65.3	27,593	34.7	79,542
Boot and shoe findings	2,931	68.0	1,378	32.0	4.309	2,932	66.7	1,461	33.3	4,393
Boot and shoe cut stock	2,754	73.2	1,010	26.8	3,764	2,813	73.4	1,019	26.6	3,832
Total	56,221	66.1	28,852	33.9	85,073	57,694	65.7	30,073	34.3	87,767

The above shows the sex division of all shoe workers regardless of age. Among the minors the boys and girls are nearly equal in number. An enumeration of wage earners employed December 16, 1911, showed that of 6,219 under 18 years of age, 3,019 were boys and 3,200 girls.[1] The age and sex distribution of the wage earners in boot and shoe factories was: Men, 61.3 per cent; women, 31.3 per cent; boys under 18 years of age, 3.6 per cent; girls under 18 years of age, 3.8 per cent. The per cent of minors for Massachusetts is in excess of that reported for the whole country in Table 2, since the Massachusetts State reports class as minors persons under 18, while the Federal reports count only those under 16. The statistics for several years back show, in Massachusetts as well as in the country at large, a small but increasing per cent of "young people" in the shoe factories. Shoemaking still remains, however, as compared with nearly all other factory trades, preeminently a business for adults.

METHODS OF INQUIRY.

For the present inquiry there were selected for special study representative groups of shoe workers. Four shoe centers were chosen for investigation, each distinct in its physical environment, its social conditions, and its relation to labor organization. These were Lynn and its neighbor towns of the North Shore, where the industry is organized into many separate unions; Brockton and its allied group of towns on the south, all in the control of one union; Boston, where the industry is conducted in a large competitive unorganized labor market; and Marlboro in Worcester County on the west, where, as

shoes" was as shamefully underpaid as was her sister stitching shirts, but Hannah without shoes to bind was not paid at all. With the gradual perfection of the single-process system in the factories through progressive inventions dividing and simplifying each step in the building of a shoe, women slowly regained a place in the trade. By the year 1860 the stitching machines were universally attached to power belts driven by water or steam, and as they no longer required great strength in manipulation they could be worked by girls or women, who would take lower wages than men. Numerous supplementary and preparatory processes were evolved demanding little skill, but nimble motions; these were taken from the well-paid worker and turned over to girls and untrained women.

---

[1] Massachusetts Bureau of Statistics, Twenty-sixth Annual Report on the Statistics of Manufactures, 1911, p. 86.

WOMEN IN THE INDUSTRY.

The increase in the percentage of women employed in shoe factories throughout the United States can be shown only for recent decades owing to the unspecialized statistical methods formerly employed; but the last 40 years, though showing no phenomenal gain in the total number of wage earners employed, have been marked by a steady growth in the proportion of women workers.

TABLE 2.—NUMBER AND PER CENT OF WAGE EARNERS OF EACH SEX IN THE SHOE INDUSTRY IN THE UNITED STATES, 1880 TO 1910.

[Source: Reports of the United States Census Office: 1880, Vol. II; 1890, Vol. XI; 1900, Vol. IX; 1910, Vol. X.]

Year.	Total number.	Adult males.		Adult females.		Minors (under 16).	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1880	111,152	82,547	74.3	25,122	22.6	3,483	3.1
1890	133,690	91,406	68.3	39,849	29.8	2,435	1.8
1900	142,922	91,215	63.8	47,186	33.0	4,521	3.2
1910	211,507	132,411	62.6	70,457	33.3	8,639	4.1

The ratios for the same period in Massachusetts do not differ materially from those for the country at large. In the 40 years succeeding the beginning of the Civil War in 1861 the gain in numbers of women shoe workers was rapid. Not only in the Revolution but in the Civil War the Army shoes were made in Massachusetts; women compelled to eke out the scanty pay sent home from the Army stitched at the shoes destined for husbands and brothers in the field. The habit of working in the shoe factory was not broken by the close of the war; in 1870, 20 per cent of the shoe workers in Massachusetts were women and girls; in 1900 this had grown to nearly 32 per cent. In the past ten or twelve years, though there has been a large growth in actual numbers, the proportion of women has shown little increase. The subjoined table gives recent figures for the proportion of women wage earners in all branches of the Massachu-

setts shoe industry in 1910 and 1911, and illustrates the comparatively slight changes from year to year.

TABLE 3.—NUMBER AND PER CENT OF WAGE EARNERS OF EACH SEX IN MASSACHUSETTS SHOE INDUSTRY IN 1910 AND 1911.

[Source: Massachusetts Bureau of Statistics, Twenty-fifth and Twenty-sixth Annual Reports on the Statistics of Manufactures, 1910 and 1911.]

Industry.	1910					1911				
	Male.		Female.		Total.	Male.		Female.		Total.
	Number.	Per cent.	Number.	Per cent.		Number.	Per cent.	Number.	Per cent.	
Boots and shoes	50,536	65.6	26,464	34.4	77,000	51,949	65.3	27,593	34.7	79,542
Boot and shoe findings	2,931	68.0	1,378	32.0	4,309	2,932	66.7	1,461	33.3	4,393
Boot and shoe cut stock	2,754	73.2	1,010	26.8	3,764	2,813	73.4	1,019	26.6	3,832
Total	56,221	66.1	28,852	33.9	85,073	57,694	65.7	30,073	34.3	87,767

The above shows the sex division of all shoe workers regardless of age. Among the minors the boys and girls are nearly equal in number. An enumeration of wage earners employed December 16, 1911, showed that of 6,219 under 18 years of age, 3,019 were boys and 3,200 girls.[1] The age and sex distribution of the wage earners in boot and shoe factories was: Men, 61.3 per cent; women, 31.3 per cent; boys under 18 years of age, 3.6 per cent; girls under 18 years of age, 3.8 per cent. The per cent of minors for Massachusetts is in excess of that reported for the whole country in Table 2, since the Massachusetts State reports class as minors persons under 18, while the Federal reports count only those under 16. The statistics for several years back show, in Massachusetts as well as in the country at large, a small but increasing per cent of "young people" in the shoe factories. Shoemakirg still remains, however, as compared with nearly all other factory trades, preeminently a business for adults.

METHODS OF INQUIRY.

For the present inquiry there were selected for special study representative groups of shoe workers. Four shoe centers were chosen for investigation, each distinct in its physical environment, its social conditions, and its relation to labor organization. These were Lynn and its neighbor towns of the North Shore, where the industry is organized into many separate unions; Brockton and its allied group of towns on the south, all in the control of one union; Boston, where the industry is conducted in a large competitive unorganized labor market; and Marlboro in Worcester County on the west, where, as

in the adjacent towns, the labor is unorganized, but the shoe factory is the chief employer of labor. The four localities selected employ 68 per cent of the wage earners of the State and produce 75 per cent of the annual output of pairs of shoes. One important center in the northeast, comprising Haverhill, Newburyport, and several other shoemaking towns, is not included in this study.

---

[1] Massachusetts Bureau of Statistics, Twenty-sixth Annual Report on the Statistics of Manufactures, 1911, p. 86.

In all, 80 factories were visited in the four localities. For certain of these the weekly pay rolls, giving the wages paid to over 4,400 women shoe operatives, were copied. The majority of the pay-roll records covered the 12 months from September, 1910, to August, 1911, inclusive, but some statistics were secured the following year, covering the period September, 1911, to August, 1912, inclusive. The number and location of the factories from which pay-roll records were obtained are shown in the following table:

TABLE 4.—DISTRIBUTION OF FACTORIES FROM WHICH PAY-ROLL RECORDS WERE SECURED.

Place.	Number of factories.	Number of individuals.
Boston and Chelsea	4	965
Brockton and vicinity	6	978
Marlboro	2	642
Lynn and Beverly	6	1,851
Total	18	4,436

In addition to this pay rolls were obtained for 157 boy minors and 213 adult men workers, the pay rolls for the men being obtained only where the men were employed at the same tasks as women.

Considerable variation was shown in the percentage of women wage earners in the several groups, the Lynn center ranking highest, the Brockton center lowest. The causes of this variation will be taken up in discussing the special groups, but it is proper to state here that the ratio for each locality has been fairly constant for a series of years.

The value of any partial data in connection with an industrial study is obviously dependent on its representative character. With this in mind, special care was used to secure in the factories studied a variety of types, not only as to the kind and amount of product, but as to other conditions. Among the 18 factories selected for special inquiry are some employing exclusively union labor; others will have none of it; others still admit union and nonunion workers alike. The character of the management ranges from a high type of altruism to greedy commercialism: the systems of manufacture also vary. The presentation of data is thus believed to represent general conditions fairly.

The investigators met the usual difficulty of accurately filling in the schedules. The editor of certain data obtained for the United States Census remarks on the unreliability of most statements made by factory officials as to number of wage earners or amount of earnings. The present inquiry made it clear that superintendents or managers as a rule can give only approximate figures on these points, usually erring in the direction of exaggeration of the numbers employed and the wages paid. Only from the pay rolls of the concerns could this uncertain information be checked and accurate information secured as to seasons, wages, shifting, and other facts.

Neither pay rolls nor managers, however, give much information about the physical conditions under which a woman works. The size and sanitary condition of the workroom, the adequacy and character of the toilets, dressing rooms, and lunch rooms, were learned through personal inspection. From these three main sources—the statements of employers and wage earners, the records, and the notes from personal inspection—was gained a knowledge fairly complete and accurate, so far as the workers' direct connection with the factory is concerned.

In addition, social information in regard to the wage earners was secured by visits to 300 women workers in their homes, visits made in part with the hope of finding out the causes of time out of work or of the unusually high or low pay of certain periods of employment. Of importance, too, was the knowledge gained of the general character of women shoe operatives. In some cases the investigator learned much of these matters and of the real adequacy of the factory wage as a means of supplying the necessaries and comforts of life, by living in the same households with the women, by hearing and sharing their casual talk of the shop and its incidents, and by joining in their recreation and other interests; in short, by being accepted as one of them. Additional enlightenment was gained from meeting those who touch closely the lives of these women—their families, priests, ministers, and doctors. From these varied sources it is possible to paint in the background of social conditions against which the shoe operatives play their daily part as producers and wage earners.

CHAPTER II.—THE SHOE CENTERS AND THE SHOE WORKERS.

LYNN AND THE NORTH SHORE SHOE TOWNS.

In any view of the shoemaking industry the towns of the North Shore of Massachusetts take the first place in history and in interest. Two of the shoe towns—Newburyport and Haverhill—which together employ 12,500 shoe operatives, this study must largely neglect.

In six of the North Shore towns—Lynn, Salem, Beverly, Marblehead, Peabody, and Danvers—shoemaking forms the dominant interest. In 1911 there were 165 factories making the complete product, with an average of 19,000 operatives; in addition, cut stock and shoe findings factories employed over 3,000, and tanning and finishing leather about 5,000 more.

Peabody, a growing town of nearly 16,000 people, has but one shoe factory, but it has three for cut stock; while in the tanning and finishing of leather it employs more than 4,000 persons. The very small per cent of women workers in Peabody has not been considered in this study. Danvers, with a population of about 10,000, has six factories, with not more than 500 operatives altogether, while Marblehead; with its dozen or more factories of small output, employs an average number of 750. These towns also were not included in the special study of the Lynn group.

Of the three main-line towns, Salem, with its 13 factories, employs about 2,600 workers—twice as many as Beverly, with its 16 factories and 1,300 workers. But Beverly, though diligent in making shoes, has a large rival industry in the United Shoe Machinery Works, which draws largely for its operatives on the population of 18,600 at its doors. A few women and girls work for the " United " at machine work. The 1,260 shoe operatives are for the most part in five or six factories of fair size, one of which was selected for special study.

Of the North Shore towns Lynn is far the largest. Its population in 1910 was nearly 90,000; within 30 years it had more than doubled, and within 10 years (1900–1910) there was an addition of nearly 21,000, an increase of 30 per cent. Lynn is a prosperous city, making no pretense at beauty, except where it touches the sea and the long boot-shaped promontory of Nahant. Churches are numerous, but with the exception of the group of public buildings and some business blocks there are few structures of stone or brick. Hasty and cheap building has been the rule since the great fire of 1889.

In 1911 the 379 manufacturing concerns of Lynn employed a maximum number of nearly 32,500 operatives. The chief industries are the making of boots and shoes and of electrical supplies and apparatus, the former being much the older and as yet the more important. Boot and shoe making and the allied industries, the production of boot and shoe cut stock and findings, tanning and finishing leather, making lasts, models and patterns, blacking, etc., claimed 246, or 65 per cent, of the total number of industrial concerns, and more than 20,000, or 62 per cent, of all factory operatives. Lynn is therefore rightly entitled to be termed a shoe city. The boot and shoe factories are for the most part in two large groups in the very heart of the city on the east and west sides of the Boston & Maine Railroad tracks, with a straggling line of smaller factories between. This grouping has been long maintained, but the recent tendency is to place factories on the outskirts of the city in sections where hitherto they have been unknown. Large new factories are, however, rare in the city. The majority of shoe concerns are housed in old buildings of red brick, crowded close together, some occupying a whole block, some a single floor or part of a floor. Outside of this concentrated area the older factories are usually two-story wooden buildings with a ground plan that looks somewhat like an eccentric H. The few new buildings are of the usual modern five or six story type, the walls high studded and nearly all window space.

The buildings of the General Electric Co. form a large group on the southwestern border of the city, where new streets are being opened up and hundreds of double or single frame dwelling houses erected for the employees. In 1912 about 10,000 employees were connected with this industry, of whom 1,800 were women and girls.

Opportunities for indoor recreation under responsible active direction are scanty in Lynn. Few churches are socialized to the extent of providing relaxation for young people who do not want to sit still all the evening after confining work all day. A visit to the dance hall for the workers whose energy outlasts 9 or 10 hours of work or to the moving-picture show for those to whom passive recreation offers a stronger appeal are the most common amusements of a legitimate character.

Dancing is as popular in Lynn as elsewhere. Every night several public dance halls are open and appear to be well patronized. Their Saturday night dances, at which men under the influence of drink are often present, have a bad reputation, and self-respecting girls rarely attend them. Few shoe workers do much reading—indeed, many claim that the work of the day is too great a strain upon the eyes to permit reading in the evening, especially by the wretched

PRESENT EXTENT OF THE INDUSTRY.

Shoemaking is an industry of no small or recent growth; from its humble beginnings in the first half of the seventeenth century it has come to employ in the United States, according to the census of 1910, 185,000 people and to show an invested capital of nearly $200,000,000.[1] Massachusetts alone employed in the year 1911 an average number of 80,000 workers, representing nearly half the total number for the country at large. If to these figures be added those for workers employed in the closely allied boot and shoe stock and shoe findings trades we have a total of nearly 90,000. This first place as a shoe-producing State has been maintained by Massachusetts for nearly three hundred years; and throughout two of these centuries women have been closely connected with the industry.

DISTRIBUTION OF MASSACHUSETTS SHOE TOWNS.

The modern status of shoe manufacturing in Massachusetts acquires a living interest if the statistics of the industry are for a time neglected and we turn to a map of the State upon which all its shoemaking towns are marked. As the traveler eastward from New York or Albany crosses, at Springfield, the Connecticut River and follows through the southern section of Worcester County the sinuous course of the Boston & Albany Railroad, shoemaking towns are found scattered along the main line or on branches leading to the north or south. A small cluster is located in the narrowed southern end of Middlesex County up to within about 15 miles of Boston. In the thickly settled suburban district lying west and southwest of the "Hub," shoe towns are lacking, but within the area inclosed by a five-mile circle drawn from the statehouse as a center, there are, besides Boston itself, five other towns in which are one or more shoe factories. The seaboard counties north and south of Massachusetts Bay constitute, however, the true shoe-town area. On the north Essex, Suffolk, and the eastern portion of Middlesex counties are thickly dotted with shoe-manufacturing cities and towns as far as the mouth of the Merrimac; on the south a large irregular cluster straggles from the coast of Norfolk County down through Plymouth and Bristol counties to reach its southern limit at New Bedford, more than 50 miles from Boston. Outside of these distinctly marked areas a few factories are operated in five or six widely separated towns situated in the northern section of the State, with North Adams in the Berkshire Hills at the end of the line. Not a single shoe factory marks the course of the Connecticut River through the State, while the people living in the great southwestern section buy but make no shoes.

---

[1] Thirteenth Census, Vol. X, Manufactures, p. 697.

TABLE 1.—SHOE FACTORIES AS DISTRIBUTED IN MASSACHUSETTS TOWNS AND COUNTIES IN 1911.

[Based on Trade Directory.]

County.	Number of towns with shoe factories.	Number of factories.
Essex	14	307
Plymouth	7	56
Middlesex	14	42
Worcester	12	23
Suffolk	3	22
Norfolk	9	17
Bristol	3	3
Berkshire	1	2
Hampshire	1	1
Franklin	1	1
Total	65	474

BEGINNING AND GROWTH OF THE INDUSTRY IN MASSACHUSETTS.

The very large number of towns and factories noted in Table 1 in the four seaboard counties, Essex, Suffolk, Norfolk, and Plymouth, is directly related to the historical beginning and growth of shoe manufacturing in Massachusetts. The industry appears to have begun in Salem, where Thomas Beard and Isaac Rickerman settled in 1629, coming on the *Mayflower* on her second voyage. They were shoemakers by trade, and are the earliest shoemakers of record in this country. Another pioneer shoemaker was Philip Kertland, who settled in Lynn in 1636, and who became so notably successful as a producer and instructor in the trade that 15 years later he was largely supplying Boston's demand for shoes, employing in his home shop a number of journeymen "cordwainers," as the shoemakers were then termed. Others instructed by him took up the work in Salem and adjacent towns. In Boston, meanwhile, James Everell built up a large business in making shoes to order, employing and teaching journeymen for nearly 50 years. A contemporary in the same trade was William Copp, in North Boston, for whom is named Copp's Hill. The rapid growth in importance of this distinctive New England industry is shown by the incorporation by the general court as early as 1648 of the "Boston Company of Shoemakers."

Shoemaking retained for 100 years after its establishment in the new land the methods which had been in use for centuries in Europe. The shoemaker sat on his bench or "seat," cut with a knife the upper and sole leather from the hide, stitched the upper with awl and waxed end, hammered the sole on a lapstone, and sewed it on by hand, turning out a complete shoe with few tools other than hammer, awl, and knife and the wooden shoulder stick with which he finished the edges.

The fact that shoemaking was, after its early itinerant period, carried on in the home or in a shop closely connected with the home, made it natural for women to take a share in a process which required the needle and thread as well as the cutting board and the knife. In the seaboard towns along the North Shore of Massachusetts women worked at stitching and binding the shoes while their men were out on the fishing grounds; and in the long stormy days of winter the whole family united in finishing the ordered product or preparing certain patterns as stock.

The latter part of the seventeenth century ushered in the beginnings of the factory system. "Shoes being made by the size, the constant complaint was that sizes were unfairly marked; no two shoemakers had the same measure. * * * William Newman, of Stamford, Conn., had a measuring stick which he had brought from England, which it was decided by the general court was a fair measure between buyer and seller, and in 1658 this was made the standard. Simple as this would seem, it worked a revolution in the business. Once a standard of sizes was fixed upon individual orders and measures were no longer depended upon solely, but enterprising shoemakers began to make up a stock of shoes. By 1700 the more enterprising had gathered groups of workmen around them and began what would be fairly called the manufacture of boots and shoes. The entire shoe was made under one roof, but no longer by one man."[1] In Randolph, Abington, Holbrook, and Quincy, in the Old Colony; in Lynn, Salem, Topsfield, Georgetown, and Haverhill, in Essex County; in Stoneham, Reading, and Marlboro, in Middlesex County; and in Milford, Brookfield, and Spencer, in Worcester County, shoemakers hired a few of their fellows and gathered them into what was then called a shop, one cutting the leather, others fitting or sewing the uppers together, and still others putting the uppers and soles together, or 'bottoming' them, in much the same fashion as that used when each shoemaker worked individually.

"The partial division of labor was a success at once, and soon the uppers were sent out to women and children to be stitched together and bound. Little 'eight-by-ten' shops were scattered all through the 'South Shore,' as Plymouth County was then termed, as well as through Essex, Middlesex, and Worcester counties. The shoemaker with his sons, and perhaps a neighbor, made a 'team' which took the fitted uppers and the understock from the manufacturer in a near-by town and bottomed the shoes or boots. One did the lasting, another the pegging (the boys, and sometimes the girls, were taught this branch), another the trimming, and still another the edge setting; but all was done by hand. When the shoes were made they were taken to the factory, which, although considered at that time a wonder, was little larger than the offices of some of our modern establishments. Here they were finished, packed in wooden boxes, and sent to the market."[1]

---

[1] Ethelbert Stewart, Old-Time Shoemakers, in Chicago Daily News, 1902.

Lynn soon became the center of this system, and sent out the cut parts of shoes to small shops throughout Massachusetts to be made up. In Lynn the cutters and other skilled workmen got 60 to 75 cents a day. The heels were wooden; the soles were sometimes fastened with copper brads but usually were sewed, the heavier ones welted, the lighter ones turned. By 1754 the piece price had risen to 60 cents a pair, and wages by the week were $3.25. This was probably for the less skilled operatives, however.

In 1795 Lynn had 200 master shoemakers and 600 journeymen and apprentices. Their combined output was 300,000 pairs of women's shoes a year.

In the winter time, on many of the farms surrounding shoe centers, shoes were bound and stitched by the women at home and lasted and pegged by the men. All the work was handwork; even the wooden peg, invented in 1815—the first machine-made part of the shoe—was driven by hand, the shoe-pegging machine patented a few years later meeting with little patronage. Many of the shoe centers, stretching from Boston east through Middlesex and Worcester counties and south through Plymouth County, date from this period, and have been making shoes from the early part of the eighteenth century. An extraordinary census taken in Massachusetts in 1837 showed 15,366 women employed by establishments making boots and shoes, while but 14,757 women were in the cotton mills. Few of the women shoe workers were, however, in the factory itself; their work was done at home.

When in 1846 Elias Howe, of Boston, invented the sewing machine, he doubtless had in mind relief for the busy housewife, but some years later his invention was utilized in the shoemaking shops for the stitching of uppers. The various processes of shoemaking were now for the first time gathered under one roof, and the "factory" system as applied to this particular manufacture was complete. The heavy machines worked by foot, sometimes by horsepower, could be managed only by men. This fact for a time threw women out of the industry, since the work on uppers, for more than a century largely turned over to them, was now done in the factory by men. Among women long accustomed to depend on this work as a means of supplementing personal or family income the distress was acute and was emphasized on the platform and in the pulpit of the time as among the social disasters consequent on the introduction of machinery into manufacture. "Hannah at the window binding

shoes" was as shamefully underpaid as was her sister stitching shirts, but Hannah without shoes to bind was not paid at all. With the gradual perfection of the single-process system in the factories through progressive inventions dividing and simplifying each step in the building of a shoe, women slowly regained a place in the trade. By the year 1860 the stitching machines were universally attached to power belts driven by water or steam, and as they no longer required great strength in manipulation they could be worked by girls or women, who would take lower wages than men. Numerous supplementary and preparatory processes were evolved demanding little skill, but nimble motions; these were taken from the well-paid worker and turned over to girls and untrained women.

---

[1] Wm. B. Rice, One Hundred Years of American Commerce, Vol. II, 1895.

WOMEN IN THE INDUSTRY.

The increase in the percentage of women employed in shoe factories throughout the United States can be shown only for recent decades owing to the unspecialized statistical methods formerly employed; but the last 40 years, though showing no phenomenal gain in the total number of wage earners employed, have been marked by a steady growth in the proportion of women workers.

TABLE 2.—NUMBER AND PER CENT OF WAGE EARNERS OF EACH SEX IN THE SHOE INDUSTRY IN THE UNITED STATES, 1880 TO 1910.

[Source: Reports of the United States Census Office: 1880, Vol. II; 1890, Vol. XI; 1900, Vol. IX; 1910, Vol. X.]

Year.	Total number.	Adult males.		Adult females.		Minors (under 16).	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1880	111,152	82,547	74.3	25,122	22.6	3,483	3.1
1890	133,690	91,406	68.3	39,849	29.8	2,435	1.8
1900	142,922	91,215	63.8	47,186	33.0	4,521	3.2
1910	211,507	132,411	62.6	70,457	33.3	8,639	4.1

The ratios for the same period in Massachusetts do not differ materially from those for the country at large. In the 40 years succeeding the beginning of the Civil War in 1861 the gain in numbers of women shoe workers was rapid. Not only in the Revolution but in the Civil War the Army shoes were made in Massachusetts; women compelled to eke out the scanty pay sent home from the Army stitched at the shoes destined for husbands and brothers in the field. The habit of working in the shoe factory was not broken by the close of the war; in 1870, 20 per cent of the shoe workers in Massachusetts were women and girls; in 1900 this had grown to nearly 32 per cent. In the past ten or twelve years, though there has been a large growth in actual numbers, the proportion of women has shown little increase. The subjoined table gives recent figures for the proportion of women wage earners in all branches of the Massachu-

setts shoe industry in 1910 and 1911, and illustrates the comparatively slight changes from year to year.

TABLE 3.—NUMBER AND PER CENT OF WAGE EARNERS OF EACH SEX IN MASSACHUSETTS SHOE INDUSTRY IN 1910 AND 1911.

[Source: Massachusetts Bureau of Statistics, Twenty-fifth and Twenty-sixth Annual Reports on the Statistics of Manufactures, 1910 and 1911.]

Industry.	1910					1911				
	Male.		Female.		Total.	Male.		Female.		Total.
	Number.	Per cent.	Number.	Per cent.		Number.	Per cent.	Number.	Per cent.	
Boots and shoes	50,536	65.6	26,464	34.4	77,000	51,949	65.3	27,593	34.7	79,542
Boot and shoe findings	2,931	68.0	1,378	32.0	4,309	2,932	66.7	1,461	33.3	4,393
Boot and shoe cut stock	2,754	73.2	1,010	26.8	3,764	2.813	73.4	1,019	26.6	3,832
Total	56.221	66.1	28,852	33.9	85,073	57,694	65.7	30,073	34.3	87,767

The above shows the sex division of all shoe workers regardless of age. Among the minors the boys and girls are nearly equal in number. An enumeration of wage earners employed December 16, 1911, showed that of 6,219 under 18 years of age, 3,019 were boys and 3,200 girls.[1] The age and sex distribution of the wage earners in boot and shoe factories was: Men, 61.3 per cent; women, 31.3 per cent; boys under 18 years of age, 3.6 per cent; girls under 18 years of age, 3.8 per cent. The per cent of minors for Massachusetts is in excess of that reported for the whole country in Table 2, since the Massachusetts State reports class as minors persons under 18, while the Federal reports count only those under 16. The statistics for several years back show, in Massachusetts as well as in the country at large, a small but increasing per cent of "young people" in the shoe factories. Shoemakirg still remains, however, as compared with nearly all other factory trades, preeminently a business for adults.

METHODS OF INQUIRY.

For the present inquiry there were selected for special study representative groups of shoe workers. Four shoe centers were chosen for investigation, each distinct in its physical environment, its social conditions, and its relation to labor organization. These were Lynn and its neighbor towns of the North Shore, where the industry is organized into many separate unions; Brockton and its allied group of towns on the south, all in the control of one union; Boston, where the industry is conducted in a large competitive unorganized labor market; and Marlboro in Worcester County on the west, where, as

in the adjacent towns, the labor is unorganized, but the shoe factory is the chief employer of labor. The four localities selected employ 68 per cent of the wage earners of the State and produce 75 per cent of the annual output of pairs of shoes. One important center in the northeast, comprising Haverhill, Newburyport, and several other shoemaking towns, is not included in this study.

---

[1] Massachusetts Bureau of Statistics, Twenty-sixth Annual Report on the Statistics of Manufactures, 1911, p. 86.

In all, 80 factories were visited in the four localities. For certain of these the weekly pay rolls, giving the wages paid to over 4,400 women shoe operatives, were copied. The majority of the pay-roll records covered the 12 months from September, 1910, to August, 1911, inclusive, but some statistics were secured the following year, covering the period September, 1911, to August, 1912, inclusive. The number and location of the factories from which pay-roll records were obtained are shown in the following table:

TABLE 4.—DISTRIBUTION OF FACTORIES FROM WHICH PAY-ROLL RECORDS WERE SECURED.

Place.	Number of factories.	Number of individuals.
Boston and Chelsea	4	965
Brockton and vicinity	6	978
Marlboro	2	642
Lynn and Beverly	6	1,851
Total	18	4,436

In addition to this pay rolls were obtained for 157 boy minors and 213 adult men workers, the pay rolls for the men being obtained only where the men were employed at the same tasks as women.

Considerable variation was shown in the percentage of women wage earners in the several groups, the Lynn center ranking highest, the Brockton center lowest. The causes of this variation will be taken up in discussing the special groups, but it is proper to state here that the ratio for each locality has been fairly constant for a series of years.

The value of any partial data in connection with an industrial study is obviously dependent on its representative character. With this in mind, special care was used to secure in the factories studied a variety of types, not only as to the kind and amount of product, but as to other conditions. Among the 18 factories selected for special inquiry are some employing exclusively union labor; others will have none of it; others still admit union and nonunion workers alike. The character of the management ranges from a high type of altruism to greedy commercialism; the systems of manufacture also vary. The presentation of data is thus believed to represent general conditions fairly.

The investigators met the usual difficulty of accurately filling in the schedules. The editor of certain data obtained for the United States Census remarks on the unreliability of most statements made by factory officials as to number of wage earners or amount of earnings. The present inquiry made it clear that superintendents or managers as a rule can give only approximate figures on these points, usually erring in the direction of exaggeration of the numbers employed and the wages paid. Only from the pay rolls of the concerns could this uncertain information be checked and accurate information secured as to seasons, wages, shifting, and other facts.

Neither pay rolls nor managers, however, give much information about the physical conditions under which a woman works. The size and sanitary condition of the workroom, the adequacy and character of the toilets, dressing rooms, and lunch rooms, were learned through personal inspection. From these three main sources—the statements of employers and wage earners, the records, and the notes from personal inspection—was gained a knowledge fairly complete and accurate, so far as the workers' direct connection with the factory is concerned.

In addition, social information in regard to the wage earners was secured by visits to 300 women workers in their homes, visits made in part with the hope of finding out the causes of time out of work or of the unusually high or low pay of certain periods of employment. Of importance, too, was the knowledge gained of the general character of women shoe operatives. In some cases the investigator learned much of these matters and of the real adequacy of the factory wage as a means of supplying the necessaries and comforts of life, by living in the same households with the women, by hearing and sharing their casual talk of the shop and its incidents, and by joining in their recreation and other interests; in short, by being accepted as one of them. Additional enlightenment was gained from meeting those who touch closely the lives of these women—their families, priests, ministers, and doctors. From these varied sources it is possible to paint in the background of social conditions against which the shoe operatives play their daily part as producers and wage earners.

CHAPTER II.—THE SHOE CENTERS AND THE SHOE WORKERS.

LYNN AND THE NORTH SHORE SHOE TOWNS.

In any view of the shoemaking industry the towns of the North Shore of Massachusetts take the first place in history and in interest. Two of the shoe towns—Newburyport and Haverhill—which together employ 12,500 shoe operatives, this study must largely neglect.

In six of the North Shore towns—Lynn, Salem, Beverly, Marblehead, Peabody, and Danvers—shoemaking forms the dominant interest. In 1911 there were 165 factories making the complete product, with an average of 19,000 operatives; in addition, cut stock and shoe findings factories employed over 3,000, and tanning and finishing leather about 5,000 more.

Peabody, a growing town of nearly 16,000 people, has but one shoe factory, but it has three for cut stock; while in the tanning and finishing of leather it employs more than 4,000 persons. The very small per cent of women workers in Peabody has not been considered in this study. Danvers, with a population of about 10,000, has six factories, with not more than 500 operatives altogether, while Marblehead, with its dozen or more factories of small output, employs an average number of 750. These towns also were not included in the special study of the Lynn group.

Of the three main-line towns, Salem, with its 13 factories, employs about 2,600 workers—twice as many as Beverly, with its 16 factories and 1,300 workers. But Beverly, though diligent in making shoes, has a large rival industry in the United Shoe Machinery Works, which draws largely for its operatives on the population of 18,600 at its doors. A few women and girls work for the " United " at machine work. The 1,260 shoe operatives are for the most part in five or six factories of fair size, one of which was selected for special study.

Of the North Shore towns Lynn is far the largest. Its population in 1910 was nearly 90,000; within 30 years it had more than doubled, and within 10 years (1900–1910) there was an addition of nearly 21,000, an increase of 30 per cent. Lynn is a prosperous city, making no pretense at beauty, except where it touches the sea and the long boot-shaped promontory of Nahant. Churches are numerous, but with the exception of the group of public buildings and some business blocks there are few structures of stone or brick. Hasty and cheap building has been the rule since the great fire of 1889.

In 1911 the 379 manufacturing concerns of Lynn employed a maximum number of nearly 32,500 operatives. The chief industries are the making of boots and shoes and of electrical supplies and apparatus, the former being much the older and as yet the more important. Boot and shoe making and the allied industries, the production of boot and shoe cut stock and findings, tanning and finishing leather, making lasts, models and patterns, blacking, etc., claimed 246, or 65 per cent, of the total number of industrial concerns, and more than 20,000, or 62 per cent, of all factory operatives. Lynn is therefore rightly entitled to be termed a shoe city. The boot and shoe factories are for the most part in two large groups in the very heart of the city on the east and west sides of the Boston & Maine Railroad tracks, with a straggling line of smaller factories between. This grouping has been long maintained, but the recent tendency is to place factories on the outskirts of the city in sections where hitherto they have been unknown. Large new factories are, however, rare in the city. The majority of shoe concerns are housed in old buildings of red brick, crowded close together, some occupying a whole block, some a single floor or part of a floor. Outside of this concentrated area the older factories are usually two-story wooden buildings with a ground plan that looks somewhat like an eccentric H. The few new buildings are of the usual modern five or six story type, the walls high studded and nearly all window space.

The buildings of the General Electric Co. form a large group on the southwestern border of the city, where new streets are being opened up and hundreds of double or single frame dwelling houses erected for the employees. In 1912 about 10,000 employees were connected with this industry, of whom 1,800 were women and girls.

Opportunities for indoor recreation under responsible active direction are scanty in Lynn. Few churches are socialized to the extent of providing relaxation for young people who do not want to sit still all the evening after confining work all day. A visit to the dance hall for the workers whose energy outlasts 9 or 10 hours of work or to the moving-picture show for those to whom passive recreation offers a stronger appeal are the most common amusements of a legitimate character.

Dancing is as popular in Lynn as elsewhere. Every night several public dance halls are open and appear to be well patronized. Their Saturday night dances, at which men under the influence of drink are often present, have a bad reputation, and self-respecting girls rarely attend them. Few shoe workers do much reading—indeed, many claim that the work of the day is too great a strain upon the eyes to permit reading in the evening, especially by the wretched light furnished in lodging houses. The librarian of the public library in Lynn knows a few women workers employed in stitching rooms who have long been great readers. One has spent much time on science and social questions; another is an authority on history and genealogy; but these are exceptional cases.

The strength of the women's club movement is exemplified in Lynn by a large number of organizations. Their nominal aims range from the historical club, with a membership made up from old families with "ancestors," to the inevitable dramatic club, made up of well-to-do young people, but few of these clubs influence in any degree the life of wage-earning women, and fewer still include them in their membership. Church clubs and societies gather in a few of the younger factory women, but mainly from families connected with the churches. The workers themselves have formed a few bowling clubs, which use bowling alleys under private ownership.

As in all towns near a large port of entry, Lynn's rapid increase in numbers means a new diversity in nationality. For 40 years the main nonnative element has been the Irish. The flood of French Canadian migration of over 20 years ago made its largest deposits in the northern textile towns; nevertheless, in 1905, immigrants from Canada and the British Provinces of America formed 12 per cent of the total population of Lynn. Canadians now come in fewer numbers, but Massachusetts still receives thousands each year from Nova Scotia, New Brunswick, and Prince Edward Island. These, as well as the diminishing number of foreign-born Irish and the few hundreds from Great Britain, are for the most part of English tongue and Anglo-Saxon habits.

The non-English-speaking peoples forming the true alien element, though on the increase, are as yet little more than 10 per cent of the whole population of Lynn and about 22 per cent of its foreign immigration. The ratios of the factors making up this alien element alter perceptibly from year to year. At present the proportion of Scandinavians and Canadians is diminishing; the Greeks, Italians, and Armenians, together with the Russian and Polish Jews, are on the increase, and even the Slavs and Lithuanians are no longer so few as to be counted with the "various." This change in the make-up of the alien element is too well known to need comment. It is brought forward in connection with Lynn only because of its effect on the personnel of the shoe workers.

In default of recent official information on the subject, several of the public schools in different localities were visited and the nativity of the children in the first three grades and of their parents was noted. In every case about 25 to 33 per cent of the parents and less than 10 per cent of the children were foreign born. In St. Mary's Roman Catholic parish school 45 per cent of the parents are foreign born; the majority of these are Irish, the rest Italians, with a sprinkling of French Canadians. The Greeks show the most rapid increase. They have now a Greek Catholic church and a school of more than 90 children. Before the Balkan War there were 200 Greek families and 2,000 Greeks altogether, 300 of whom were born in Turkey. Of these, 1,000 were unmarried men and 300 unmarried girls. Of the latter, 200 were in shoe factories in Lynn and Chelsea. In spite of all these alien elements, Lynn is as yet, in contrast to many Massachusetts towns, distinctly an American city in its population and general character.

WOMEN SHOE WORKERS IN LYNN.

The frequency with which the eye meets the sign "Rooms to let" convinces a visitor that the population of Lynn must be in a state of constant coming and going. Those who come are more than those who go. Nevertheless, there is constant shifting or the "Rooms to let" sign would not be displayed so persistently. Are women wage earners among these shifters? What is their race and condition, and what are their standards of living?

To answer these questions adequately for Lynn or elsewhere would require long and close study of the workers. The employers know something, the shopkeepers something else; the churches know a little, the schools a little more. The census man has gathered a few facts and has missed a great many. Even the wage earners, who know much about the wage, hours, and nature of their work, have scanty knowledge of each other.

The shoe industry of Lynn, including cut stock and shoe findings shops, employed in 1911 an average number of about 15,500 operatives. Of these 6,000, or nearly 40 per cent, were women. Women workers form a higher proportion in the North Shore group, as a whole, than elsewhere. The main reason for this is doubtless the fact that the product is mainly women's and children's shoes. There is more stitching to be done on women's than on men's shoes and the number of supplementary processes is greater. In other towns making a similar product the proportion of women is nearly the same, as it is in certain large isolated factories, like that of the Queen Quality shoe, in Jamaica Plain. This average number, 6,000, by no means represents the entire force of women in the factories. The force continually changes and shifts, so that the average number is not more than 85 per cent of the total number employed during a year. It is probable that not less than 7,500 women were connected with the shoe factories in 1911. With the hope of gaining definite knowledge as to the nativity and place of training of these women, a simple questionnaire, with the cooperation of the management, was put through the women's rooms in three large factories. Each worker stated her birthplace, the number of years she had lived in Lynn, and her marital condition.

The factories in which these questionnaires were circulated are of different types. Factory A is one of the largest, and is held to be the best in Lynn as to wage and management. Factory B is also large, but its product, management, and therefore personnel of the working force, are of low grade. Factory C stands midway in conditions. Taken together they form a group fairly representative of general conditions. The statements obtained as to nativity of the women are presented in Table 5. The native born are grouped according to birthplace in Lynn, other parts of New England and other parts of the United States; while the foreign born are in two groups, the one of nativity in lands using the English tongue, the other in lands of foreign speech.

TABLE 5.—NATIVITY OF 607 WOMEN WAGE EARNERS IN THREE FACTORIES IN LYNN.

[Based on personal statements of the women.]

Place of birth.	Number and per cent of workers in specified factories.							
	Factory A.		Factory B.		Factory C.		Total.	
	Number.	Per cent of total.	Number.	Per cent of total.	Number.	Per cent of total.	Number.	Per cent of total.
Native born:								
Lynn	44	22.0	92	38.6	64	37.9	200	32.9
Other parts of New England	39	19.5	58	24.4	57	33.7	154	25.4
Other parts of the United States	46	23.0	18	7.6	14	8.3	78	12.9
Total	129	64.5	168	70.6	135	79.9	432	71.2
Foreign born:								
Non-English-speaking lands	48	24.0	34	14.3	27	16.0	109	17.9
English-speaking lands	23	11.5	36	15.1	7	4.1	66	10.9
Total	71	35.5	70	29.4	34	20.1	175	28.8
Grand total	200	100.0	238	100.0	169	100.0	607	100.0

A word should be added in connection with those born in other parts of New England. The stream of migration on the part of young men and women from northern New England farms and villages to the shoe-factory towns has been supposed to be constant and considerable. As to the men no statistics are available, but among the women those born in Maine, New Hampshire, and Vermont are but a handful. Other parts of Massachusetts claim most of those not native to Lynn, with the greater number from towns within a radius of a few miles from the latter.

Analysis of the foreign-born element also disproves some common opinions. English is the native language of by far the greater number. The Canadians are largely from Montreal or Quebec, where English as well as French is spoken. Among the French Canadians traits and training differ from those marking natives of Great Britain and Ireland, or even people of the British Provinces of America, nevertheless English speech and Anglo-Saxon customs have shaped thought and habit even for the French Canadians. Many of them have been long resident in the United States. Among the truly alien women a number of "Russians" (Jews) are present in the sole-leather and packing rooms of one factory, where also a few Greeks and "Austrians," probably Slavs, are found. In the stitching rooms are a few Italians, while Germans, Scandinavians, and central Europeans are conspicuously few. The foreign-born women doing skilled work are largely natives of Scotland, Ireland, or the British Provinces; Jewish women are seldom among the skilled workers.

Another point brought out by the questionnaire related to the length of residence in Lynn. The workers in these three representative factories, when not Lynn born, were for the most part Lynn bred. This applies both to native and foreign born; for the greatest number upbringing and education have been in Lynn. The proportion whose residence in Lynn has been five years or less is remarkably small; a residence of five years or over for more than 75 per cent and of 10 years or over for nearly 60 per cent is shown for those listed in Table 6.

TABLE 6.—LENGTH OF RESIDENCE IN LYNN OF 407 WOMEN NOT BORN IN LYNN WHO WERE WORKING IN THREE OF ITS LARGE SHOE FACTORIES.

[Based on personal statements of the women.]

Number of years in Lynn.	Number of women.	Per cent of total.
Less than 1 year	10	2.4
1 year and less than 6 years	88	21.6
6 years and less than 10 years	71	17.5
10 years and less than 20 years	114	28.0
20 years and less than 30 years	81	19.9
30 years and more	43	10.6
Total	407	100.0
SUMMARY.		
Less than 10 years	169	41.5
10 years and more	238	58.5
Total	407	100.0

MARRIED WOMEN IN LYNN SHOE FACTORIES.

When any large group of women over 25 years of age, not vowed to celibacy, is under consideration, it is a natural assumption that the majority are married. The customary age of marriage is frequently later in an industrial community than elsewhere, yet women over 25 are as a class not affected by this. There is a tendency to account for the many single women aged 25 to 40 in the factories by the old tradition of the excess of women over men in Massachusetts.

This excess, beginning with the days of the California gold discovery and greatly increased by the losses of the Civil War, at one time undoubtedly influenced considerably the industrial distribution of women. The disturbed balance has, however, been largely restored by foreign immigration which, though in smaller proportion than some years ago, still brings yearly more men than women to Massachusetts. Recent statistics of the population prove that so far as the present proportion of the sexes is concerned there is no reason why marriage should not be as frequent in Lynn as in any normal community, and the proportion of married women is, in fact, greater than in many New England towns.[1] The fact that a large proportion of the shoe workers are unmarried women does not, therefore, mean that there is an undue proportion of single women in the city; rather it indicates that the majority of the women shoemakers withdraw from the industry when they marry.

Concerning the married women in Lynn shoe factories, there are two commonly accepted beliefs: First, that the proportion of such workers as compared with other shoe centers is abnormally large; and, second, that American women are much more inclined than foreign women to remain in the factories after marriage or to come back to them after an interval of domesticity. As to the first of these beliefs, the facts gathered in this investigation tended to confirm it.

In 1905 married women, including in that term widows and divorced and deserted wives, formed 26.4 per cent of the total female shoe workers of Massachusetts.[2] Among the 720 female workers in Lynn as to whom this fact was learned, 33.1 per cent were married. Among the workers themselves the belief in the unusual proportion of married women in the Lynn factories is general, and women who have worked in more distant shoe centers, as in Brooklyn, Rochester, and the towns of the West, where the employment of married women is said to be unusual, are at a loss to explain the contrary custom in Lynn.

For the second belief no confirmatory evidence was found. The proportion of married women among the female shoe workers of the whole State in 1905 was as follows:[3]

Per cent of native born who are married	25.7
Per cent of foreign born who are married	29.3
Per cent of both classes who are married	26.4

---

[1] Total population of Lynn, 89,336; number of males, 44,585, of females, 44,751. Thirteenth Census, Vol. II, p. 882. Proportion which unmarried form of female population, 15 years or over: Lynn, 33.5 per cent; Brockton, 32.5 per cent; Fall River, 38.2 per cent; Brookline, 53.9 per cent; Cambridge, 39.8 per cent. Idem, Vol. I, pp. 663–665.

[2] See Massachusetts Census of 1905, Vol. II, pp. 54, 55. Of the female cotton-mill operatives in Massachusetts at the same date 29.3 per cent were married, widowed, or divorced (Vol. II, p. 69).

[3] Calculated from figures given in Massachusetts Census of 1905, Vol. II, pp. 54, 55, and 187.

The figures gathered in this investigation showed the following proportions:

TABLE 7.—MARITAL CONDITION OF 720 WOMEN WORKING IN THREE LARGE SHOE FACTORIES IN LYNN.

[Based on personal statements of the women.]

Marital condition.	Native born.		Foreign born.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Married	136	27.0	102	47.2	238	33.1
Single	368	73.0	114	52.8	482	66.9
Total	504	100.0	216	100.0	720	100.0

In these three factories, it will be observed, the foreign born not only show a larger proportion than the native born of married workers, but this relative excess is greater than it was for the State as a whole in 1905.

Among the English-speaking women visited, Americans lead in the proportion of married workers. They are followed closely by the natives of Great Britain and Ireland and of the British Provinces of America.

The married woman with a husband in the factory supplements his earnings as frequently from choice as from necessity. The rent for a flat or a half house near the factory is high; the whole house at a distance is inconvenient. Therefore it is the habit of most young couples coming to Lynn to hire one room in a lodging or boarding house. This leaves the young wife without sufficient occupation. Her husband is away all day; she is perhaps without friends. It does not take her long to discover that the factory will provide friends, occupation, and the extra money for those small comforts and luxuries she desires, but which her husband's scanty earnings deny. Again, those women who have been factory workers themselves dread housekeeping, with its hours of loneliness and its cares, to which lack of domestic training may make them as unfitted as averse.

Two cases taken from the Lynn schedules typify a class of workers by no means confined to that city. Mrs. G. is a Maine woman, 40 years old. She left school at 17 and was then in the second year of the high school; at 18 she began work in a shoe factory for her own support. At her marriage four years later she left the factory and did not return until her only child outgrew babyhood. She has now been working several years. Her husband is in the lasting room of the same factory. They are boarding; do not attend church; they stay at home evenings to rest and read. Both are members in good

CHAPTER III.—NATURE AND CONDITIONS OF WOMEN'S WORK IN SHOE FACTORIES.

TECHNICAL PROCESSES.

It has been calculated that about 40 separate pieces, 50 operators, and from 100 to 150 different processes are required in the construction of a modern shoe as it passes from the hide in the cutting room to its tissue-wrapped completion in the packing room. Notwithstanding this minute division of labor, the three main processes now involved in the actual manufacture of a shoe are the same that have been in use since leather was first fitted as a complete covering to the foot. These are the cutting out of soles and tops, the sewing together of the pieces of the uppers, and the fastening together of the two main portions.

With the progress of civilization new standards govern the requirements for clothing of every sort. Comfort, convenience, and durability are prime necessities. Beauty of form and finish are valuable qualities, as they have always been, but if they spell inutility and discomfort they now attract only a minority of buyers. It is in part the endeavor to achieve comfort and durability that has multiplied the pieces in a modern shoe, and it is the effort to reduce cost and gain time in production that makes the number of processes twice or thrice that of the pieces. This modern differentiation with its multiplication of minor operations maintains the demand for women and girls as workers in the shoe industry. The increase in numbers, both absolute and relative, of these workers has been shown in Chapter I. We have now to consider their present part in the making of shoes.

The most convincing proof of the complexity of the present-day shoe manufacture is given by a visit to one of the factories of the modern type, where each room or floor is distinguished by the chief processes there carried on. These processes fall into the following main divisions: (1) sole-leather cutting, (2) uppers cutting, (3) stitching, (4) lasting or making, (5) finishing. Sorting and packing, though demanding both space and workers, are not properly processes.. The cutting of the sole-leather parts, though usually included in the work of high-grade factories, is often the business of special shops from which the soles and heels are bought in assorted lots as required by the shoe factories. Certain minor parts of the uppers are also at times cut in special factories.

The first step in the production of a shoe properly begins in the main office, where the orders from agents or traveling salesmen are some are widows; a few have children, but the majority are unmarried girls and women without home ties.

In nearly every quarter of Lynn the lodging house is prominent, but near the railroad station and the larger factories the "Rooms to let" sign is seen in most of the houses. The prices for rooms are uniformly high, though the conditions vary greatly. A large four-story lodging house near the civic center contains 143 rooms let by the day, week, or month. The majority of these rooms are of fair size, some have good light and air, but the furniture is shabby, and both rooms and furnishings sorely need cleaning. Each floor has two or three bathrooms and separate toilets, fairly clean, but used with no discrimination as to sex. The rooms are let, as in a hotel, to any applicant, of either sex, with no references required.. No reception room of any kind is provided. Guests, if received at all, must be taken to the lodgers' bedrooms, where also any social intercourse among the lodgers must take place, as there is no dining room. Prices here varied from $2.35 per week for a small dark back room, to $3.50 for rooms on the front. Lodging houses near the station, and therefore convenient to several large factories, showed similar conditions, though the neighborhood and rooms were inferior. Convenience of location, however, keeps up the prices, which ranged from $2.50 to $3.50 for small rooms shabbily furnished and with wretched artificial light. In one house, somewhat unfavorably placed near the railroad, conditions were excellent. The sensible woman who was mistress here declared that as a moral safeguard no lodging house should be without a reception room, and she does not permit her lodgers to take guests of an opposite sex to the bedrooms. In several houses near two or three of the largest factories grime, dreariness, and discomfort were everywhere evident, and some were filthy in the extreme. No reception room was provided in any case; women lodgers receive men visitors in their bedrooms. The rents for these houses were abnormally high. The mistresses claimed that they could not afford to reserve a reception room.

Restaurants or "mealing houses" are also numerous. The usual price per week for meals is $3 to $3.50. The former price is often charged for women, the latter for men. Thus for a fairly decent room and tolerable food not less than $5 to $7 a week must be paid. As the price for food can not be cut down, women making $8 a week or less will try to cut down on the room. This is frequently done by sharing a room with another worker.

The foreigners of both sexes are usually members of families or of family households. Greek and Italian unmarried girls are carefully guarded. The Greek priest claims that a lodging house for both sexes would not be tolerated. The 150 unmarried Greek girls working in Lynn shoe factories live with their own families or with relatives.

The customs of the home country are maintained. Here, as there, a Greek girl separated from her family loses her chance to marry.

The social status of the women in shoe factories in Lynn is variously estimated. A recent investigator states on one page of a report that women inevitably lose caste by working in a shoe factory; on the next that America may well take pride in this class of wage earners. If these opposing statements were less inclusive, both would be true. The American and Irish women who filled the stitching rooms in the years when women were found in no other part of the factory were above the ordinary factory force in intelligence, education, and standards of living. Few were unattached to families and fewer still continued to work after marriage, while they mingled on equal terms with the shopkeeping or clerking classes of their city. A constantly decreasing number of this type now remains. The usual view of the social standing of this class of women is shown by the attitude of a prominent official of the Boot and Shoe Workers' Union, who, a father himself, after some hesitation declared he would be willing to put his daughter in a stitching room in Brockton, but would on no account do so in Lynn.

It is said by social workers in Lynn that an unattached woman coming to the city to work in a shoe factory has absolutely no hope of making social connections outside of the factory and lodging house unless she joins a church. A few do this; more who have been churchgoers in their own home towns shrink from intruding upon a strange congregation. The Young Women's Christian Association has no branch in the city. Its place has been partly filled by a Women's Reading and Rest Room established some years ago by certain philanthropic ladies of Lynn. The quarters of this association have recently been transferred to an ample and artistically furnished house on Broad Street near the heart of the city. In this home are rooms for 20 girls, rented at very moderate rates. A kitchen and dining room are also provided, where girls from outside may cook their own lunch at noon, and may rest, read, or talk in the pleasant hall and library. There is a large gymnasium, open afternoon and evening for classes. These unusual advantages are enjoyed by young women a good deal above the shoe workers in social standing, mainly stenographers or members of the office force in shops or factories. A machine operator or two of a superior grade has come in, but the majority of factory girls would feel out of place in these associations. The gymnasium could well enlarge its uses to meet the needs of the lodging-house girls everywhere in the neighborhood, but to do this different forms of recreation would have to be introduced, and for this movement the managing ladies are not yet ready.

A similar home designed especially for factory girls has been established by the manager of the Sorosis factory. In this "annex" are rooms for 10 women, a library, evening classes in sewing and embroidery, and a large dining room where good meals are served at small cost. These privileges are offered to club members only. There is no gymnasium or other place of active recreation.

BROCKTON AND THE PLYMOUTH COUNTY SHOE TOWNS.

Brockton lies on a branch of the New York & New Haven Railroad, about 20 miles south of Boston and at an equal distance west of the coast of Massachusetts Bay. It is one of a group of towns in the northwest corner of Plymouth County, in all of which the making of shoes is the chief business. Bridgewater, Randolph, Rockland, Whitman, and North Abington all lie within a 10-mile distance and are connected with Brockton and each other either directly by rail or by a ramification of trolley lines.

Important factories are located in some of the smaller towns, but in amount and value of product Brockton not only leads in the region but is a close rival to Lynn, so close that in one or two recent years the inland city, though now holding second place, has actually run ahead of the North Shore center in its manufactures. In 1911 the number of Brockton factories was, however, only 32, against Lynn's 117.[1] Brockton is not the home of small plants; larger buildings, better equipment, and firmly established business are general characteristics of the shoe industry in Plymouth County.

Of the 60 or more factories in Plymouth County making the complete shoe product 32 are in Brockton. In addition 43 factories produce shoe and leather findings and cut stock. Foreign labor is largely employed in these shops; women form 36 per cent of the total number of employees as against the 27 per cent in the factories making a complete product. Brockton also occupies chief place in Massachusetts in the production of shoe-factory tools and supplies. This industry grows apace, both in Lynn and Brockton. Work with leather or for leather products absorbs the whole local industrial energy.

Brockton as a city is as frankly industrial as Lynn, but its aspect shows civic interest on the part of its people and a degree of general, if moderate, prosperity. Streets are uncongested, public buildings well placed, and homes well kept. Fine schools, numerous churches, and a library housing 15,000 volumes, give to the city a true New England character. There is little absenteeism on the part of the factory owners, whose families have in some cases been in the shoe business for a century. The 30 or more shoe factories are grouped about the three railroad stations in Brockton proper and in its north and south sections, Montello and Campello, originally villages but now a part of the city. Streets in the vicinity of the factories are closely built, but fairly clean. The city on the whole is attractive as a place of residence.

---

[1] Massachusetts Bureau of Statistics, Twenty-sixth Annual Report on the Statistics of Manufactures, 1911, p. 24.

WOMEN SHOE WORKERS IN BROCKTON.

Brockton, according to the Federal census of 1910, is among the cities of Massachusetts showing large increase in population. In 1910 its people numbered 56,878, an increase of nearly 30 per cent in 10 years. The original American element was, in accordance with the condition in eastern Massachusetts cities 25 years ago, modified mainly by the Irish. But if at present a factory superintendent in Brockton is questioned as to the nationality of his working force, he is apt to reply, "We have everything but a Chinaman." The statement is scarcely an exaggeration. About 30 years ago French Canadians began to arrive, shortly followed by Swedes. More recent additions are the southern European and semioriental people, with some from central Europe, and the inevitable Russian and Polish Jews. English and Scotch from Canada and the British Provinces are less numerous than in Lynn. A few Portuguese are found, with faces almost as dark as those of the Negroes from families who settled in Plymouth County before the Civil War. Colored women work in many shoe factories, but are not distinguished in the subjoined table of nativity. This includes employees of two large factories in Brockton. The Swedes, at first largely employed in shoe findings shops, have made their way up to the regular factories, where in all the skilled processes they are valued workers. Though their speech is alien to the American, their habits and standards are not so. In rapid assimilation of American habits they correspond to the immigrants from the British Provinces in Lynn, and like them are distinct from the later invasion.

TABLE 8.—NATIVITY OF 344 WOMEN WAGE EARNERS IN TWO FACTORIES IN BROCKTON.

[Based on personal statements of the women.]

Place of birth.	Number and per cent of workers in specified factories.					
	Factory A.		Factory B.		Total.	
	Number.	Per cent of total.	Number.	Per cent of total.	Number.	Per cent of total.
Native born:						
Brockton	25	22.9	44	18.7	69	20.0
Other parts of New England	58	53.2	107	45.5	165	48.0
Other parts of the United States	4	3.7	4	1.7	8	2.3
Total	87	79.8	155	65.9	242	70.3
Foreign born:						
English-speaking lands	15	13.8	32	13.7	47	13.7
Non-English-speaking lands	7	6.4	48	20.4	55	16.0
Total	22	20.2	80	34.1	102	29.7
Grand total	109	100.0	235	100.0	344	100.0

The shoe factory draws the immigrant to Brockton, and if he is not inefficient, it keeps him; industrial reasons seldom drive the steady worker from this center. Length of residence for some hundreds of women shoe workers not born in Brockton is given in Table 9. Were a questionnaire put through the men's rooms it would give, doubtless, somewhat different results on this point.

TABLE 9.—LENGTH OF RESIDENCE IN BROCKTON OF 714 WOMEN NOT BORN IN BROCKTON WHO WERE WORKING IN THREE OF ITS LARGE SHOE FACTORIES.

[Based on personal statements of the women.]

Number of years in Brockton.	Native born, but not born in Brockton.		Foreign born.	
	Number.	Per cent.	Number.	Per cent.
Less than 1 year	6	1.2	12	5.2
1 year and less than 6 years	102	21.1	71	30.7
6 years and less than 10 years	83	17.2	38	16.5
10 years and less than 20 years	183	37.9	66	28.6
20 years and less than 30 years	76	15.8	35	15.2
30 years and more	33	6.8	9	3.8
Total	483	100.0	231	100.0

MARRIED WOMEN IN BROCKTON SHOE FACTORIES.

Special inquiry made among 850 women shoe workers showed that nearly 40 per cent were married. Frequently husband and wife are both wage earners, although the work of married women is strongly disapproved by the better class. A reason for it is the desire to secure an income upon which both may live and save money. Wages, though high, are not continuous. That there is much saving is proved by the line of depositors stretching down the street from the People's National Bank every Saturday night. Employees in shoe factories own 90 per cent of the houses in Brockton. Children to make these households complete are frequently wanting. Brockton's birth rate is the lowest in the State, while the divorce rate is the highest. The want of the common bond of children is unquestionably one reason for the latter fact, but another cause is probably that a wife's support so often stands ready for her in the factory when the husband's character or conduct does not measure up to her standards. Of the children brought into the courts 80 per cent are from homes where both parents are daily out at work, while in the Brockton day nursery 50 per cent of the babies have mothers in the shoe factories.

TABLE 10.—MARITAL CONDITION OF 853 WOMEN WORKING IN THREE LARGE SHOE FACTORIES IN BROCKTON.

[Based on personal statements of the women.]

Marital condition.	Native born.		Foreign born.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Married	258	37.3	73	45.1	331	38.8
Single	433	62.7	89	54.9	522	61.2
Total	691	100.0	162	100.0	853	100.0

LIVING CONDITIONS OF SHOE WORKERS IN BROCKTON.

The homes of Brockton shoe workers are many and, on the whole, show good standards of comfort. Workers without homes often rent rooms from resident families, but for the majority of the unattached the lodging house stands ready. The better type of lodging house is usually termed a hotel. One of these, where rooms rented for from $3.50 to $5 per week, showed excellent conditions, among which were the provision of a reception room and reading room. A few shoe operators of both sexes roomed here, but not many can afford the terms. In other houses, where prices were lower and no reception rooms were provided, lodgers of both sexes received visitors in their rooms.

The women shoe workers, especially the childless, have the reputation of extravagance in dress. The high cost of necessaries, the indulgence in luxuries, and the ignorance of economical expenditure combine to keep many of the wage earners living from hand to mouth. The Americans and Irish in particular wear much finery, for which they are often in debt to the credit clothing stores. Prices charged at these stores are very high, but by paying $1 down a whole suit may be obtained, which is often worn out before it is paid for. Superintendents of certain factories are greatly annoyed by the frequency with which assignments of wages are served on their employees. It is the custom with one large firm to pay wages before pay day, charging a discount of 5 per cent; sometimes a profit of $75 a week is made by this practice.

Brockton's winter recreations are largely limited to the moving-picture show, with its vaudeville features, and to the dance hall. The "movies" are carefully censored by public opinion; it is claimed the pictures are of a good class. There is also one theater, with a stock company. In singular contrast to the propriety of these diversions is the character of the young people's favorite meeting place, the dance hall, where lack of supervision has greatly lowered the moral tone. Homeless young girl workers are not so numerous in Brockton as in Lynn, but they are as little safeguarded from improper associations and amusement. The Young Women's Christian Association does not attract this special class, nor do the churches make special provisions for them. Opportunities for physical and mental development are not offered to adults by the public-school system, nor is there a public recreation organization. Brockton offers many advantages to the sheltered, home-loving woman, but few to her sister forced to an isolated life.

BOSTON AS A SHOE CENTER.

In Boston proper, shoemaking is no longer a prominent industry. The few shops seem either content with a small output or desirous to move into outlying sections. In South Boston the number of shoe factories is increasing by removals from Lynn and Brockton, but even there other industries claim precedence in importance. Jamaica Plain with its 5,000 operatives in one factory is really a shoemaking section. Chelsea's several factories show a large output of low-grade shoes for women and children. The distribution of population in these special localities is somewhat different from that of the metropolis. Americans and Irish in South Boston, East Boston, and Jamaica Plain, and Jews, Greeks, and Italians in Chelsea, are the chief nationalities. In Boston proper the proportion of women workers is small. In Chelsea, where an average of 6,436 shoe operatives was reported in 1911, only about 28 per cent are women workers, the stitching-room forces being largely made up of men. South Boston factories draw for their partly skilled processes from a mixed and unstable community, but their best-paid workers are still mainly American and Irish. A description of the character and habits of these workers would mean a description of the wage earners of all Boston, and would not, as in the case of the other centers, provide information leading to conclusions of value as to the shoe workers as a class.

In Jamaica Plain, partly owing to the policy of the large factory in employing workers living within easy reach of their work, a class of stable resident employees has been developed. The nativity of the women in one stitching room in this factory is shown in Table 11.

TABLE 11.—NATIVITY OF 159 WOMEN WAGE EARNERS IN A STITCHING ROOM OF A BOSTON SHOE FACTORY.

[Based on personal statements of the women.]

Place of birth.	Number.	Per cent of total.
Native born:		
Boston	93	58.5
Other parts of New England	19	12.0
Other parts of the United States	2	1.3
Total	114	71.8
Foreign born:		
English-speaking lands	21	13.2
Non-English-speaking lands	24	15.0
Total	45	28.2
Grand total	159	100.0

All the city opportunities for recreation and education are open to these shoe workers of Boston; this, with other attractions of city life, makes them reluctant to move away. They are, however, often pushed out by the high cost of living, which is not balanced, as in Lynn, by high wages.

MARLBORO AND THE MIDDLESEX COUNTY SHOE TOWNS.

Marlboro is 25 miles west of Boston, and though reached by branches of two railways, is not on the main line of any railway. In the 20 years from 1890 to 1910 it added less than 1,000 persons to its population of 13,800, and now numbers less than 15,000, of whom over 4,000 are shoe workers. It is a pleasant, open, well-planned little town, with a fine public library and town hall, a new and sightly high school, and several flourishing factory industries, among which the boot and shoe factories hold, as they have since the days of farm and village shoemaking, the most conspicuous place. The chief shoe plant has four large modern factory buildings and employs not far from 2,000 operatives, of whom more than one-third are women. The three or four other factories produce heavy or low-grade shoes and boots for men. Their operatives are often drawn from the surrounding farms or villages, to which also parts of the work are still sent out.

The population of Marlboro, until 30 years ago, was almost exclusively of American stock, with a small proportion of Irish. Immigration from Canada added hundreds of French Canadians as workers in the growing factory industries. In 1905 these French Canadian immigrants numbered nearly 1,200, while the Irish were 900 strong. The British Provinces contributed 500, and Italy and Greece together about 250. The foreign element at that date was about 30 per cent of the population. The English-speaking element was then and is now far less in proportion than it is in Brockton or Lynn. At present the immigration of French Canadians has largely ceased; but these alien settlers have become a permanent though still distinct part of the community.

A more singular element in the Marlboro community is the large number of Greeks, brought in at the time of a strike in 1895. The Greeks are now permanently settled in considerable numbers; they have their families, and are perhaps a little more clannish than the French Canadians. The population, originally so distinctively American, is now, therefore, made up of unmixable elements. American and English yet predominate, but the French Canadians on the "Hill" and the Greeks in the "Hollow" are likely to remain as long as shoes and automobile supplies are made in Marlboro. A large number of the women of both races work in the shoe factories.

Exact statistics are not at hand as to the proportion of married women, but the French Canadian, while governing his family by strictly patriarchal methods, is accustomed to permit his wife and daughters to share in its maintenance. Married women from Greek families do no factory work as a rule.

The town is a place of homes. It has a small number of unattached men, but the problem of the unattached woman scarcely exists. The factories close down on Saturday afternoons; the factory girls go home, put on their finery, and walk the streets in couples or take a trolley to enjoy the gayer but still restricted diversions of South Framingham or Natick. The relation of the more important factory employers to their workers is helpful and friendly, and as a whole Marlboro comes near to meeting the possible ideal of a shoe center.

The average earnings of shoe workers in Marlboro are much below those of Lynn, Brockton, or even Haverhill, but this fact is balanced by the lesser expense of living. Rents, food, even clothing, cost less than in the more easterly towns. Doubtless the French trait of thriftiness has its influence on expenditure as a whole. There is almost no display of wealth and as little sign of real poverty. Agur's prayer for a subsistence, neither poverty nor riches, seems answered for this quiet town.

In view of what would appear its attractive conditions, it is singular that shoe workers from livelier centers usually reject with energy the idea of removing to Middlesex County. The reasons seem to be that, except in its larger number of operatives, Marlboro labor conditions are typical of other Middlesex County towns in which shoe factories are placed. The farm as well as the village population has long been accustomed to finding work in the factory when farming flags or fails. In all these towns the supply of help is more abundant than the demand; the effect is lower wages and less shifting among the workers, who hold their places with tenacious jealousy against newcomers.

Buttonholing (M.).—Making buttonholes by machine.

Buttoning (M.).—Putting buttons on by machine.

Cementing (H.).—Applying cement to the various parts to hold them together before stitching.

Closing (M.).—Putting two or more parts together.

Closing on (M.).—Stitching lining and outside together.

Crippling (H.).—Repairing imperfections.

Eyeleting (M.).—Putting in the eyelets with machine.

Folding (H. or M.).—Turning edges to be stitched.

Lacing (H.).—Running laces in shoes.

Making linings (M.).—Stitching back seam, sides, and top of linings.

McKay sewing (M.).—Sewing through both soles and upper so that sewing appears inside of shoe.

Packing (H.).—Placing a pair of shoes in a carton.

Perforating (M.).—Punching ornamental holes in tips.

Pressing (M.).—Using a "flat press" on heels and soles to make parts adhere.

Ragging (H.).—Cleaning completed shoes.

Repairing (H.).—Filling cracks in patent leather.

Skiving (M.).—Shaving leather to desired thickness in all parts.

Stamping (H. or M.).—Marking size and width on the inside of the shoe or marking parts of uppers that are to go together.

Staying (M.).—Putting on heel or other stays.

Table work (H.).—Matching parts, tying threads, trimming, pasting, etc.

Tip fixing (H.).—Repairing patent-leather tips.

Tongue stitching (M.).—Sewing tongue in vamps.

Top stitching (M.).—Stitching across the top and side of the shoe.

Turning (M.).—Turning upper right side out, or in fine shoes turning the whole shoe.

Vamping (M.).—Stitching the vamp to the upper.

METHODS OF LEARNING THE TRADE.

Thirty thousand women are to-day working in various branches of shoemaking in Massachusetts.[1] Where and how do they learn the processes connected with it, and how long a time is needed to make them competent wage earners? For the 2,500 women in shoe findings and cut stock shops the answer is simple—the work is of so elementary a character as to demand almost no instruction; the illiterate foreign women who mainly undertake it require for most of the processes scarcely as much direction as their male relatives receive from the overseer "bossing" a piece of street digging. Monotonous repetition of mechanical movements is easily acquired. Natural differences in mental endowment are manifest not in the degree of skill but of speed.

For the 27,500 women in factories working on the complete product the case is very different. All the processes are more technical, and for those connected with machine manipulation there are requisite

---

[1] Massachusetts Bureau of Statistics, Annual Report on the Statistics of Manufactures, 1911, p. 2:

Average number:

Shoe findings and cut stock	2,480
Boots and shoes	27,593

intelligence and dexterity, the first of which must be present in the learner, while the second must be gained through instruction. The Commonwealth supplies instruction for certain boys and men, namely, boys in the reformatory at Concord and men in the Charlestown prison. Not even in penal institutions, however, may a woman have free instruction in this means of livelihood. For her there are but two places where she may learn shoemaking—the factory or the shoe school. The great majority learn the processes in the former, yet the shoe school, as the more formal and definite method, deserves first consideration.

LEARNING IN A TRADE SCHOOL.

A shoe school has none of the furnishings that give an academic air to the ordinary schoolroom. Greasy machines replace the desks, pieces of leather strewn about in disorder, the books. Nor does a janitor perform even the most perfunctory of tasks between classes; sanitary regulations are in fact conspicuously lacking. The labor unions have no connection with shoe schools and are indifferent to their condition, while the health boards apparently leave them out of their lists. So far as could be learned there are no shoe schools in Greater Boston, and none in the shoe section of which Marlboro is the center. A good deal of training is given, however, in the factories of these centers.

The six schools found were all in Lynn or Brockton. The developed organization of the shoe industry in both cities makes them proper fields for shoe schools. In Lynn, however, the manufacturers prefer to train workers in their shops, since lack of uniformity and certainty in union regulations permits this method. Brockton offers the best conditions for shoe schools, as practically no shop teaching is given there.

Those who attend the shoe schools are, in growing proportion, of foreign birth. They range in age from 15 to 60 years, and many of them are illiterate. Frequently they have been in America only a few months and are so anxious to learn a trade quickly that in many cases they have borrowed the necessary tuition fee. The majority are men between the ages of 18 and 40; only about one-third of them have worked in shoe factories before entering the schools. The women are between 15 and 60 years of age; a larger proportion than among the men, though less than one-half, have had some experience in factories, usually only in the various kinds of unskilled table work. Few boys attend the schools, chiefly because the processes taught male workers require maturity in the learner. The training given to the two sexes differs not only in the character of the operations taught but in the degree of proficiency requisite. There is a distinct gap between the work done by boys and that done by men. A boy can be an errand or odd-shoe boy or can block out tongues in the cutting room for several years without needing much training, but to get a man's job he must have special training either in a factory or school. Not so with the girls, for whom the line between unskilled and skilled work is less sharp. A chance to work in a factory is all they need, and, so far as their future economic welfare is concerned, it matters little whether they begin as table or machine workers. This explains the reason why a large proportion of the minors in the shoe schools are girls. They are learning table work or the less skilled stitching processes, anything that will give them access to a factory. Once this is gained, the capable girl can advance in time to the better-paying processes.

Two schools give instruction in stitching-room processes only, a third teaches all the operations necessary in making a "turned" shoe, while two others teach all processes except cutting and buttonhole making. The managers offer instruction only in those operations with which they are themselves familiar. Two schools have courses in vamping, top stitching, and skiving, because the managers know these special operations. The two schools teaching nearly all operations employ several instructors, and are making shoes on their own account in addition to running a school. Instruction in cutting is not given, since the cost of the material is high and the process is one requiring a long apprenticeship, which is permitted by the unions in factories. Buttonhole-machine operators have not been in much demand until the recent popularity of button shoes, and as the machine is complicated the process is not taught in shoe schools.

The majority of the students are naturally eager to learn the skilled operations. They usually choose one of the following processes, for which relatively high wages are paid: Goodyear welting, Goodyear stitching, edge trimming, vamping, pulling over, No. 5 lasting, edge setting, foxing, and tip stitching. Table work, which attracts many pupils, is an exception; it is chosen either by young girls or women well along in years; in either case they are not capable of the swift, sure manipulation necessary to run a power machine. There is a middle group of operations, which attract few pupils and require only a fair degree of skill; these are heeling and slugging, McKay stitching, buffing, scouring and breasting, nailing heel seats, hand lasting, and leather repairing.

Of the 29 processes taught, 8 only are open to women—vamping, skiving, foxing and tip stitching, top stitching, seaming and backstaying, stitching linings, patent leather repairing, and table work. The charge for teaching these processes in no case exceeds, and in but two, vamping and skiving, approaches $25. The time required to learn varies greatly; vamping is the most skilled process, and necessitates, according to the managers, from three to seven weeks for moderate proficiency, while skiving requires five weeks.

Foxing and tip stitching requires from four to six weeks. Stitching linings and patent leather repairing require but from one to three weeks, and the tuition is only $5, while the service given in table work is regarded as sufficient compensation for instruction in the simple and easily acquired processes.

The processes open to men are more skilled, the necessary machines more expensive, and the time required to learn longer, hence the tuition for seven of the most skilled processes ranges from $35 to $75. Goodyear welting, Goodyear stitching, and rounding require eight weeks to learn. Edge trimming, also considered very skilled, takes seven weeks to master. McKay stitching takes from two to five weeks to learn, while turn stitching and rapid stitching require from two to four weeks to master. These seven most skilled and remunerative processes are open to men only. Vamping, foxing, tip stitching, and skiving are the only skilled processes practiced by both women and men.

The amount of tuition charged in the different schools for the same process varies with the location and with the grade of work for which the pupils are prepared. When pupils are preparing to work on a cheap grade of shoe they do not need the skill expected of workers on a high-grade shoe, nor do they require much supervision; hence the lower tuition. One school making its own product claims to teach the less skilled stitching operations free, providing the girls do table work without pay for several weeks. No tuition is charged for table work because most of the work is unskilled and does not take long to learn. The girls can mark, trim, paste, and fold, and so reduce the cost of labor in producing a shoe. If later they wish to learn to stitch linings, to seam or to put in backstays, the firm promises to give the instruction without charge. The promise is not always kept.

All instruction in a shoe school is individual. When Harry Burns went to learn Goodyear stitching he paid $75 tuition and was put to work at once on a Goodyear machine. An instructor taught him to run the machine and started him at stitching on scraps of leather. Later he was initiated into the mystery of Goodyear stitching. In about six weeks he had "got the hang of the job," but he kept on for two weeks longer, as he wanted more skill and some speed. To find work in a shoe factory, although of necessity a nonunion one, was his next step. Six months in such a factory did wonders for him; in short, he had mastered Goodyear stitching. Next, friends, union members, who could vouch for the fact that he had been working at his trade for six months gained him admission to the union. Thereafter he secured work in a "closed" shop, where wages were higher.

Lilly Brown went through experiences somewhat different when she decided to become a vamper. Fortune favored her from the time she paid $25 instead of $75 for tuition until she got work in a union shop immediately after she left the school. She had been taught in the school to stitch linings and backstays. Later she was advanced to the more difficult processes, top stitching, closing, foxing, undertrimming, tip stitching, and finally vamping. Harry had spent eight weeks in the school, and on leaving knew only one skilled process; Lilly in her six weeks' time learned several operations in addition to vamping. Neither was she compelled to work six months at her newly acquired trade before she could get a job in a unionized factory, for since the demand for skilled women workers is greater than the supply her union is not so strict as the unions for men.

Careless and haphazard methods characterize the general conduct of the shoe schools. The records kept are meager and usually take the form of a receipt giving the name of the pupil and the process he has chosen. Addresses of present pupils are seldom kept and those of former ones are unknown. It is therefore difficult to ascertain how many pupils have been enrolled in these schools during a given period, but it is certain that at any given time only a small proportion of those desiring to learn can be accommodated. So far as could be learned, the shoe schools of the State enroll altogether about 1,000 pupils at a time and teach 6,000 to 10,000 of both sexes during the year.

TABLE 12.—PROCESSES TAUGHT MEN AND WOMEN, TUITION, AND TIME REQUIRED TO LEARN.

[Based on the statements of managers of five shoemaking schools.]

Process.	Sex of pupils.	Cost of tuition.	Number of weeks required.
Goodyear welting	Male	$75	8
Goodyear stitching	Male	75	8
Rounding	Male	50	8
Turn stitching	Male	50	2 to 4
Rapid stitching	Male	50	2 to 4
Edge trimming	Male	$25 to 40	7
McKay stitching	Male	35	2 to 5
Heeling and slugging	Male	25	2 to 6
Cutting	Male	25	5
Lasting on No. 5 machine	Male	25	3
Skiving	Male and female	25	5
Bottom finishing	Male	25	2
Vamping	Male and female	20 to 25	3 to 7
Pulling over	Male	15 to 25	3 to 4
Edge setting	Male	20	4
Foxing and tip stitching	Male and female	15	4
Turn lasting	Male	15	2
Turning and beating out	Male	15	2
Buffing	Male	15	2 to 3
Scouring and breasting	Male	15	2
Top stitching	Male and female	5 to 15	4 to 6
Seaming and backstaying	Male and female	10	3
McKay lasting	Male	10	2
Nailing heel seats	Male	10	1
Hand lasting	Male	10	3
Leveling and stitch separating	Male	10	2
Stitching linings	Male and female	5	1
Patent leather repairing	Male and female	5	3
Table work	Female	0	3

LEARNING IN THE SHOE FACTORY.

Those who learn shoemaking in the factory may be divided, with reference to the conditions of their instruction, into three groups, namely, first, those who "pick up" knowledge of a process in a factory where regulations of management or labor unions forbid instruction; second, those working where self-instruction or casual teaching from fellow workers or foremen is permitted; third, those regularly taught by their employer, in the hope of their remaining with him permanently. The first class is found in some highly unionized centers, where teaching of new workers is forbidden, with a view to preventing overcrowding in the best jobs and consequent reduction of prices. They are found, too, in localities where skilled help is abundant and a sign on the factory door brings a dozen eager applicants, from whom the manager may choose at leisure. The experiences of the would-be instructed worker in these localities are always varied and sometimes sad. Ora, for example, gets a job as floor girl in the stitching room of a Marlboro factory. Her work is carrying stock to and from the women at the tables and machines. As she is alert and anxious to learn, she watches the different operations, and soon gains a fair idea of the simpler ones. Some time, when the foreman is scolding a worker at the other end of the room, she slips to a vacant machine and "has a try." Soon after a lining stitcher leaves or is moved up. Ora declares to the foreman: "If you will let me try linings, I am sure I can make good." It is as easy to let her try as to find a worker from outside, so she goes ahead, and, being intelligent, does "make good." It is safe to prophesy that she will advance steadily and rapidly.

The fortune of another girl of this class is different. Mamie Dunn obtains a job at sorting the smaller pieces of leather in the cutting room. Here is no opportunity to "pick up," for all the other work in the room belongs to men. She stays on for six months or perhaps a year and is still a sorter with a meager wage. She waits a little longer and then speaks to the foreman, but nothing happens. Then she begins to look about her and learns that in a neighboring shop a packer is wanted. She applies for the place and gets it by a "bluff"—that is, by claiming to be a packer. The work is simple and she does it successfully; it is also clean and pays fairly well, so Mamie is safely launched. But these are the more fortunate cases. Rose Ferrino has not the push of these girls. She goes into the shop and is put on pasting, an unskilled, poorly paid, and very dirty work. She pastes away patiently and does not try to learn anything else; not that she does not want to, but she does not know how to go about it. She is not naturally observant, all her training in school had to do with books and not things, so she stays where she is and nobody pushes her on. Finally she gets "sick of it" and leaves. The foreman lets her go without demur, for he knows he can get some one better in a few hours. When she applies for a job at another factory she is asked what she can do. She replies "only pasting," and she is destined to do only this dull and unremunerative work so long as she remains in the factory, and that may be for many years.

We now come to the second group, found where union regulations are less strict and help less plentiful, or where an individual shop plans, by prospects of promotion, to make its force as stable as possible. Here the worker is allowed to practice on a machine in her spare moments. There are many days when there is no work for at least a half hour, and during that time much learning and teaching can be carried on among the workers. The foreman comes along from time to time and offers helpful comment. In the mornings and afternoons after the power is turned on the learner can sometimes practice on the machine of a worker who is late. She has chances to learn several processes and soon discovers the one she likes best or, more frequently, the one by which she can make most money.

The third is the fortunate group. In their neighborhood is a large factory which daily displays the notice, "Girls wanted to learn." It is usually an isolated factory—one which, owing to trouble with unions or desire for cheaper labor, has moved from a shoe center to a new community. Such a shop must face a double problem—that of finding workers and of training them when found. The offer of training serves two purposes—it attracts unskilled workers, and gradually supplies the shop with skilled help. Training is also given by a few established firms which realize the advantage of having their work done by their own methods instead of by those which each individual finds comfortable for herself. The system of teaching is practically the same in both classes of factories. Certain operators who have shown ability are selected for teachers and, as such, are paid about $20 a week. The learner is usually a child of 14 to 16 years of age who has just left school, and from the moment she enters the shop is under the care of the teacher. She is first put on table work, and while learning it is paid from $2 to $3.50 a week. If she shows any skill she is pushed on rapidly. When she reaches the machines she is first put on lining stitching, as it is light work, and the material, if spoiled, is little loss. From this she passes to stitching the smaller leather parts. She may not learn vamping, the most difficult of all the stitching processes, until she can stitch the several other parts of the shoe successfully. Few girls, however, learn a great many processes; the young worker will usually stay at the first on which she can make a fair wage, even though her employer urges her to advance. With the exception of vamping, there are no restrictions as to age in learning the various processes, and young girls can master them in a short time. One teacher estimated that a girl beginning at 14 reaches her best and most rapid output at 19 years old. Her impetuosity is a help rather than a hindrance. She has no fear of her machine, is naturally swift in her movements, and less afraid of making mistakes than an older girl.

While the girl who picks up her trade or teaches herself can select the process which she likes best, the girl who is taught has usually less choice. Her employer considers himself the best judge of her capacity, while as a rule he puts her into the place where help is needed without consideration either for her feelings or her capabilities. This is probably one of the reasons why learners are unwilling to stay in the shops where they get so much for nothing.

The operations taught beginners in factories are all extremely simple. Workers in localities, however, where the trade may be picked up, frequently start on the more difficult processes. This is especially true of the women between 40 and 50 years old. Out of 214 women visited, who reported in various centers, 3 had begun as vampers, 12 as closers, 12 as buttonhole operators, 9 as backstayers, and 8 as top stitchers. One hundred and seven, exactly half the number, had begun on various machines.

It is evident that the burden of instruction is very unevenly divided among the factories, some assuming much and some very little. A few are so fortunate as to have a steady supply of skilled operatives trained in the neighboring shops, a condition found chiefly in small shoe centers where one shop pays better or is "nicer" than the others and consequently attracts the best workers. Where the trade is picked up, or learned at odd moments, the cost to the employer is very small, as a machine can be used only if it has been vacated by some one else and the learner can "try" only in the free time for which she is drawing no pay. On the other hand, the employer who trains all his help does so at heavy cost, made up of the wear and tear on machines, the power necessary to run them, the waste of materials, the wages of the teacher, and the wages of the learner. The value of the learner's product certainly does not balance this, while the training is made still more costly by the fact that a large number of the girl learners leave after they have reached the point at which they become valuable. A generally alleged reason for leaving is that they are "discontented." More definite explanation discloses various causes: Frequently they can not learn the process they wish; often the girl claims a high wage when she has mastered an operation, without realizing that she has not gained the speed which makes her production valuable; sometimes, too, the learner is put on piecework almost at the beginning, and as her output is very small she becomes disheartened and leaves.

The time necessary to learn processes in the factory is difficult to estimate, varying as it does with every operation and with every learner. To quote the skilled worker: "It all depends upon how smart you are." Table work, buttoning, and trimming threads take no time to learn; blacking and cementing can be mastered in from 5 to 15 minutes. The stitching processes naturally take longer, but each is a help toward the next. Were one to learn vamping at the start, it would take at least three months, whereas when it is taken up after several other stitching processes it is said that it can be mastered in one week.

The following table is based on information given by 214 women working in shoe factories:

TABLE 13.—TIME REQUIRED BY 214 WOMEN TO LEARN VARIOUS KINDS OF WORK IN THE SHOE TRADE.

[Based on personal statements of the women.]

Kind of work.	Less than 1 week.		1 week to 4 weeks.		1 month to 12 months.		Total.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Machine:							
Skilled	17	24.0	29	40.0	26	36.0	72
Medium skilled	8	22.9	16	45.7	11	31.4	35
Hand:							
Skilled	6	26.1	14	60.9	3	13.0	23
Unskilled	55	65.5	27	32.1	2	2.4	84
Total	86	....	86	....	42	....	214

When one considers the rapidity with which these operations are learned a trade school seems superfluous. Its main advantage would be to give the mastery of several processes, especially the skilled ones, so that the worker would be equipped to fill different positions. This equipment would double or treble the chances of getting a "paying job." It has been estimated that a bright girl of 16 or 17 could master in less than two years all the occupations open to women.

The citation of the "bright girl" raises a question. Given the same opportunity, or lack of it, what is it that makes some young workers succeed and others fail? The foreman will tell you that if a girl is bright and industrious, particularly the latter, she will soon become skilled, by "skilled" meaning she will possess the sum total of qualities necessary to make a good wage on piecework. As a matter of fact, however, nobody acquires skill in a shop. What she acquires is "speed"—that is, the power of handling things quickly though not necessarily correctly. A young assistant forewoman unconsciously summed up the matter very well when, in speaking of a sister whom she had trained, she said, "Anne could make nothing on linings so I put her on backstays; since then she has done well."

Stitching linings is a simple process paid for at a slender piece rate; it must therefore be done very rapidly if the worker is to make even a small wage; in other words, the key to success in this case is speed. Anne evidently had not and could not acquire this speed, so she was put on a harder job carrying a higher rate of pay. Here she succeeded for she had "skill"—that is, she could do a difficult thing, though she could not do it very quickly. Speed, then, is the one thing that can be acquired in the shop, and this comes with time and not with teaching. Speed and skill together make the key to success; but not all possess both qualifications. Scientific management could give skill and the next best gift, speed, to some who can not develop either unaided, but it would take a trained teacher to do it, and teachers are rare in the factory. There are few foremen who can stand over the young worker's machine and show her what is wrong in method and movements. The whole teaching of the operation is customarily summed up in, "Get up and let me show you."

The wage seeker, young or old, American or foreign, who chooses the shoe factory as his field will naturally balance the merits and defects of each method of learning. He will ask advice and receive it in bewildering variety. A foreigner will doubt his ability to win success without formal instruction in the trade; a young person with American notions will rely on "picking it up," or choose factory training. The advantages of the schools as at present managed are dubious. Certainly the pupils learn how to run a power machine, but the process it represents is seldom thoroughly mastered in the time they can afford to give. One woman interviewed had learned vamping in a school, but, in her own words, "got only a vague idea of vamping, and had a lot to learn when she began in the factory." Hers is no exceptional case. "They haven't had experience enough to work rapidly," explained one of the school instructors when accounting for the frequent failure of his pupils to hold factory positions. The hostility of the settled force to new workers is accounted for by a union official on the ground that the daily work is so correlated in amount as to meet the average output of a fair worker. Anyone who can not measure up to the average reduces the amount of work assigned, and therefore the earnings for the whole room. School-taught workers are so frequently laggards that every effort is made to shove them out. The fact of school training is seldom an advantage when an applicant interviews superintendents. The latter claim that the only advantage conferred by a shoe school is the acquisition of a certain self-confidence, and they ignore the fact that to a foreigner this is a very real advantage. Foremen and forewomen usually prefer the totally unskilled as beginners. Practically no effort to place their pupils is made by the schools. Occasionally a bright pupil is helped to a good position, or during a rush season one or two of the advanced learners may be sent to a factory in response to a telephone call, but to secure work the rank and file must depend on their own efforts.

On the other hand, while the rigid limitation of numbers and of instruction in union centers is less severely felt in the women's rooms, it forces many young people to leave their homes and seek other centers where they may legitimately learn what they can acquire only surreptitiously at home. They have no attachment to the strange factory and will leave it for a familiar environment or for higher wages when they can. The possible establishment of publicly maintained trade schools equipped to teach shoemaking is viewed with little apprehension by the managers of private shoe schools, since a course planned to cover a year or more is not apt to draw pupils from the short-term courses. A public trade school, to supersede the inefficient shoe school and the usual haphazard factory teaching, must shorten the shoemaking course, yet make it possible for the pupil, without losing his position, to acquire proficiency by means of part-time or continuation instruction.

HOURS OF LABOR.

Factory people begin work early. The shoe workers pour into the passage marked " For employees only " as the whistles are shrieking 7 o'clock. In their respective workrooms they remain, with an hour's interval at noon, until 5. Since the 54 hours-a-week law for women became effective in January, 1912, the above has been the usual arrangement in Lynn. It is varied in certain factories by extending the hours on 5 days and closing at 1 p. m. on Saturday. This custom is almost universal in summer. Occasionally a factory begins work at 6.30 a. m. and closes earlier. The hours vary somewhat with the season, but the nominal 10 hours of work for 5 days with a short day on Saturday is growing in favor.

In Brockton the hours of beginning and ending work vary somewhat. Hundreds of workers come in from outlying towns by long-distance trolley, and as many more arrive by train. To accommodate these outsiders, many Brockton factories cut down the noon spell to a half hour and close work at 4.30 or 4.45 p. m. to allow their help to make trains. Saturday afternoon is not so frequently given as in Lynn, most of the shops running the same hours each day in the week, even in summer.

Overtime work is uncommon in shoe factories in Lynn and Brockton, and is rare in any well-run factory. On a few nights in the busy seasons the stitching room gets ahead of the lasting and dressing rooms and a few workers remain to catch up. In cold weather leather cracks, the repair work increases abnormally, and girls are often requested to remain to finish an order. They are not compelled to do so, but, of course, a request from the manager is seldom refused. Nor are some women averse to earning the occasional extra pay.

In Marlboro and the towns of its section 56 hours was the usual working week before the recent law. At present the 10-hour day with a free Saturday afternoon is very popular. In some factories a 9½-hour day is preferred with a short day on Saturday. The preparation for a day's work and its winding up take as much time on a half as a whole day, so that any arrangement giving a short Saturday is costly to the management. Yet a discontented force is more costly, even in a nonunionized town. The free Saturday afternoon is fairly established in this whole region.

A 54-hour week was the custom in Boston even before the passage of the law. The work begins at 7.15 or 7.30; usually a half hour only is given at noon, and the factory closes at 5. But no custom is universal in the various sections included under the name of "Boston."

The 54.hours-a-week law went into effect January 1, 1912, and, when this investigation was made, had been in operation only a short time. Like a new broom it had swept clean, and evasions were yet uncommon. Nevertheless, there are factories in which the power is put on and workers voluntarily begin before the end of the noon hour.

WORKING CONDITIONS AND SANITATION.

The factory at which the workers arrive at 7 a. m. may be a six-story brick building of many windows and ample floor space, or a three-story wooden structure crowded and ill-lighted throughout. The better building is more common in Brockton and in Marlboro, while the largest factories in the outskirts of Boston are buildings of a model character. In the smaller towns, and conspicuously in the Lynn district, old frame structures, often forlorn and unsafe, are still in use.

The workrooms differ in character as widely as do the buildings, but the position of the stitching room in a factory and the general arrangement of the machines varies little. The usual plan is to provide the shoe with a steady journey of development from the top floor to the bottom. This gives the stitching room, in which are the majority of women workers, either a part of the top floor shared by the cutters, or the floor below the cutters. The women packers, who are the last to touch the shoe, are on the first floor nearest the offices. When a factory is small it frequently occupies one floor, high in a building, the first floor of which is given up to the offices of different firms. In most cases the main rooms in which women work are on the top floors. Yet elevators, except for freight, are extremely few.

Sometimes, but rarely, the women are allowed to use freight elevators between stated hours, a privilege commonly given only to those who present a doctor's certificate. The long flights of stairs to the fourth or fifth floor must be mounted twice a day.

The ordinary stitching room, where the majority of the women are found, is lighter than other rooms in the factory because higher up, but it is so crowded that it seldom gives an impression of being well lighted. Sometimes there are windows on all four sides of the room, but under these windows is a close double row of machines. Behind this double row is an aisle; but with racks of shoes standing about on the floor and floor girls hurrying to and fro, the aisle takes little from the air of congestion. Behind this aisle, again, in the center of the room, if machines are placed around all sides, or against the windowless wall when they are not, are the tables for the handworkers. The first row of machines, therefore, has good light and air, the second a less but still tolerable supply. The table workers have the worst of the situation in every way; frequently their tables are placed in a close little space surrounded by high racks of shoes, where the younger girls work all day, cut off from daylight and good air.

But they are in no worse situation than the women downstairs in the packing room. This room, at the back of the first floor, always has poor light, its windows frequently opening upon some narrow alley between tall buildings. Since the task of packers and tip fixers requires close study of the shoe, the half daylight or artificial light is extremely trying to eyes and head. Further, while the air everywhere in the factory is heavy with the odor of leather, in the packing room and sometimes near the tables in other rooms, the odors from pastes and blackings used are particularly sickening. Better air is possible where there are plenty of windows, but the workers who spend 9 or 10 hours a day indoors are afraid of the cold, so the windows are kept closed. Any attempt at artificial ventilation is unusual.

Cleanliness is carefully maintained in the offices, but very little regarded in the workrooms. Usually a man is detailed to sweep up about the machines, but he is apt to sweep up only the scraps of leather, leaving dust thick in the corners. Even this slight aid is sometimes denied the workers, and they are forced to hire some one or to sweep, themselves, if they wish their places clean.

The habit of spitting upon the floor is common in the men's rooms, and men introduced into the stitching rooms do not always leave their habits behind them. The managers, however, often claim that women are more untidy and more neglectful of sanitary precautions than men, and that the efforts made in the best factories to secure better conditions are largely wasted from lack of cooperation in the working force. The unions, especially in Brockton, have made some efforts to secure better conditions, but these efforts seem rather aimed to rouse the management than to give the workers themselves higher ideals.

The care of the toilets, legally the employer's affair, is also sometimes left to the women. In Lynn they are often obliged to hire some one to keep them decent; and while the money burden is light, the injustice of the arrangement is keenly felt by some. Toilets, separate for men and for women as required by law, usually on each floor, are always provided, yet they are seldom more than tolerably clean, and sometimes distinctly insanitary.

Dressing rooms, though necessary for the comfort and decency of the operatives, are to be found only in the best factories. A woman careful of her appearance always changes her street clothes for a costume suited to the conditions of the shop. It is neither convenient nor decent for her to change her dress in the stitching room itself; yet often the only dressing convenience she has is a nail driven in the wall above her machine. Where dressing rooms are found they are simply dark corners of the room shut off by wooden partitions and so small that in the rush at noon and at night the girls using them have scarcely room to turn about.

Lunch rooms in the shoe factories are not found in Lynn. One large factory, however, provides a clubhouse for its women employees, a delightful place where good meals are served at cost. But this is the only lunch room connected with a factory in Lynn. Other factories sometimes allow an outsider to come in and cook for the workers on a stove in one of the rooms; sometimes the workers cook for themselves. The women often bring tea or coffee in bottles and heat the beverage to drink with their cold lunches. But despite the added cheer, it is a bad practice to use the workroom as a lunch room. It prevents it from being aired in the absence of the workers and gives them no change from their surroundings, and therefore no real relaxation. Workroom conditions are too frequently detrimental to health and habits of self-respect.

Lack of proper conveniences is an evil, but in the stitching room it is not the chief evil. That, to a visitor, is the racking noise. Over the hum of the power belt and the whir of the stitching machines comes the rapid jar, clank, clank, clank of the eyeleting machine and the vicious whir-clank-stop of the Reece buttonhole machine; and through and above it all the teeth-on-edge shriek of the men's lasting machines below, making altogether a noise truly infernal. The workers themselves become used to it, declare that they do not mind it, and deny that it makes them nervous; they only regret that the effort to be heard in the workroom makes their voices loud, high-pitched, and harsh.

The physical conditions in the shoe factories of Lynn seem to indicate a center satisfied to be as it always has been—sordid but successful. The "fads" of dressing rooms and rest rooms and lunch rooms are felt to be all very well for other cities, but a waste of valuable floor space in Lynn. This is partly due to the fact that most firms do not own the buildings in which they manufacture; the owner, who builds for some unknown tenant, does not care to risk the loss of floor space that might prevent him from leasing.

In some of the modern factories variously located, conditions in the workrooms are as favorable to health and comfort as they can be made in a factory. One fine factory near Boston claims peculiar advantages in its workroom arrangements; nevertheless, the women stitchers are set so close together that each has an irritating consciousness of a neighbor's proximity. The racking noise from the buttonholing machines seems redoubled by this crowding.

Dust arising from the material subjected to the machine is not an injurious result of work in the stitching room as it is in the bottoming room. The actual manipulation of certain machines does, however, produce some physical injury. Operators on buttonhole and eyeleting machines are frequently forced to give up the work on account of "stomach trouble." The effect of these special machines upon the nerves is often disastrous.

The first impression made upon a visitor is the tremendous speed at which the machines are run. The rate is usually voluntary, yet an ambitious and practiced worker is under the temptation of using a speed that strains nerves and eyes. The pauses in the work so frequent in the stitching rooms, though they mean financial loss, are a relief to the strain and break the wearisome monotony of making the same number of stitches hour after hour on bits of leather identically the same.

The monotonous, often nerve-wearing, character of the work is the real cause of what sometimes appears caprice in throwing up jobs. "Tired of it" is one of the most frequent reasons assigned for the abrupt relinquishment of work. To get out and hunt for another kind of operation or to work in different surroundings is a coveted relief. Change of occupation within the same factory is often desired, especially by handworkers. Once on a fairly good job, there is sometimes for several years no decided desire for another. Then comes a day when the monotonous repetition wears through nerve endurance. Of 300 women interviewed in their homes, nearly 80 gave as a reason for leaving a job, "tired of it." On the whole, however, there is as much variety in the shoe work as in the clothing trades, and far more than in the textile mills or the majority of other factory trades. At present the machinery in use can not, as in a cotton mill, do away with dexterity and judgment on the part of the operator.

The selection of material, its adjustment to the machine, the inspection for perfection and finish, all create in the operator an individual relationship to his part of the product, even though he may never deal with a whole shoe. The "speeding up" complained of in the textile or box-making industries is not common; the worker usually runs the machine at the pace he desires, as it can produce good work only when guided by a clever hand. This feeling of responsibility is no doubt a main reason why many of the shoe workers, though but dimly aware of the cause, are not unsatisfied with their work.

CHAPTER IV.—WAGES OF WOMEN SHOE WORKERS.

INTRODUCTION.

No one statement in relation to conditions in the shoe trade is made more frequently or with a greater emphasis than that the wage scale is higher than that of any other factory industry. That this is a general conviction among wage earners and employers alike, there can be no doubt, but the causes assigned are as various as the characters of the informants. The owner of a factory quotes the free competition of an industry as yet unaffected by the trust tendency; the officials of the larger unions assert that organization of labor has succeeded in setting a reasonable wage standard, which, maintained in the larger centers, forces up wages even in unorganized localities: the practical directing force in the factory explain as a cause of high wages the skilled nature of the processes, demanding an intelligence commanding everywhere its price.

Doubtless these are all real conditions, and taken separately or together they make the weekly rates of wages relatively high. It remains for us to see, especially in the case of the women workers, whether they combine to make annual earnings adequate.

SOURCES OF INFORMATION.

To determine the accuracy of the impression generally prevalent as to the high reward of shoe workers and to measure this reward against some standard, several sources of information are available, namely, the reports of the State bureau of statistics, the general statements of employees and of wage earners, records from the factory pay rolls, and, lastly, interviews with workers in their homes.

As to the published statistics, valuable as they are for comparing one industry with another, they are admittedly of doubtful accuracy in the case of any special industry. The reports are obtained by sending blank forms to the manufacturers and are filled in by some member of the firm or of the office force. The desire to magnify the amount of business and to stand well in the matter of wage scale tends to exaggeration of numbers and expenditure, while in many cases factory records are so carelessly kept as to make the reports largely guesswork. These statements are chiefly useful in giving knowledge of general conditions and for comparisons among the several industries or with reports of previous years. The statements, too, of factory owners, officials, managers, and foremen only in exceptional instances afford reliable data for the details of wages and earnings. Their estimates may or may not come close to the facts. A source of information that will naturally first occur to the inquirer is the worker himself. It is, however, a common experience in industrial research to find that where no written record is kept the worker is but vaguely aware of the exact amount of his earnings for any long period of time. The amounts, for reasons that will suggest themselves, are under or over stated. Real accuracy can be secured only by the laborious copying of well-kept pay rolls, in which the name and special occupation of each worker is stated, with the amount of weekly earnings paid.

WAGES AND EARNINGS AS SHOWN BY RETURNS OF MANUFACTURERS.

While the pay rolls must be the final criterion in this study, it will help, nevertheless, in the discussion of earnings in the shoe industry to make some comparisons and estimates based on the returns made by manufacturers to the State bureau of statistics. For the purpose of such a comparison, in Table 14 are given 11 Massachusetts industries employing over 2,500 adult women, with the number and per cent of men, women, and minors and the wages they received. Unfortunately the State bureau does not give the average weekly and annual wage for the three classes of wage earners separately. This was learned for special groups from other sources and will be quoted later.

TABLE 14.—COMPARISON OF CHIEF MASSACHUSETTS INDUSTRIES AS TO NUMBER OF MEN, WOMEN, AND MINORS EMPLOYED AND THEIR WAGES.

Industry.	Workers and wages in industry specified.					
	Persons employed, 1911.[1]		Average wage for week ending Dec. 16, 1911.[2]	Average wage for all workers for week ending Dec. 16, 1911.	Average annual earnings for all workers.	
	Number.	Per cent.			1910.[3]	1911.[4]
1. Cotton goods:						
Men	53,826	48.1	$9.83			
Women	44,386	38.6	7.91			
Minors	13,793	13.3	5.92			
Total	112,005	100.0		$8.59	$412.09	$407.80
2. Boots and shoes:						
Men	52,980	61.7	15.17			
Women	26,875	31.3	10.39			
Minors	6,038	7.0	6.43			
Total	85,893	100.0		13.06	586.64	594.15

---

[1] Massachusetts Bureau of Statistics, Twenty-sixth Annual Report on the Statistics of Manufactures, 1911, pp. 90–133.

[2] The average wage was secured from the classified wages for men, women, and children by taking the mid-value in each class group as the average wage and multiplying it by the number of wage earners in that group. The sum of the total earnings thus obtained for each class was then divided by the total number of wage earners in that class, and the result was regarded as the average wage. In the case of the group "Under $3," $1 was used as the lower limit, making a mid-value of $2, and in the "$25 and over" group, $25 was taken as the value, the personal statements obtained from the women indicating that the number in this industry receiving more than $25 was too small to justify the use of a greater value than $25.

[3] Massachusetts Bureau of Statistics, Twenty-fifth Annual Report on the Statistics of Manufactures 1910, pp. 1–12.

[4] Idem, 1911, pp. 1–12.

TABLE 14.—COMPARISON OF CHIEF MASSACHUSETTS INDUSTRIES AS TO NUMBER OF MEN, WOMEN, AND MINORS EMPLOYED AND THEIR WAGES—Concluded.

Industry.	Workers and wages in industry specified.					
	Persons employed, 1911.[1]		Average wage for week ending Dec. 16, 1911.[1]	Average wage for all workers for week ending Dec. 16, 1911.	Average annual earnings for all workers.	
	Number.	Per cent.			1910.[1]	1911.[1]
3. Woolen and worsted goods:						
Men	28,689	54.2	$11.20			
Women	17,958	30.1	8.57			
Minors	6,088	15.7	6.21			
Total	52,735	100.0		$9.73	(1)	$460.17
4. Electric machinery and supplies:						
Men	13,884	75.0	14.47			
Women	2,768	14.9	8.36			
Minors	1,872	10.1	6.55			
Total	18,524	100.0		12.75	$600.20	605.06
5. Paper and wood pulp:						
Men	9,153	65.1	12.48			
Women	4,338	30.9	7.13			
Minors	567	4.0	6.63			
Total	14,058	100.0		10.59	513.47	519.13
6. Hosiery and knit goods:						
Men	2,445	26.2	11.54			
Women	5,460	58.5	7.87			
Minors	1,433	15.3	6.12			
Total	9,338	100.0		8.56	396.20	395.10
7. Boots and shoes, rubber:						
Men	4,430	54.6	12.90			
Women	3,173	39.1	9.39			
Minors	503	6.3	6.19			
Total	8,106	100.0		11.11	509.99	479.89
8. Confectionery:						
Men	1,540	22.5	12.08			
Women	3,412	49.8	6.70			
Minors	1,901	27.7	4.73			
Total	6,853	100.0		7.37	346.07	348.37
9. Clothing, women's:						
Men	1,254	22.2	16.63			
Women	4,032	71.4	8.55			
Minors	359	6.4	5.01			
Total	5,645	100.0		10.12	456.09	469.61
10. Clothing, men's:						
Men	2,461	45.6	14.94			
Women	2,785	51.6	7.93			
Minors	154	2.8	5.31			
Total	5,400	100.0		11.05	511.12	605.01
11. Hats, straw:						
Men	1,239	31.8	14.07			
Women	2,563	65.8	11.63			
Minors	92	2.4	6.52			
Total	3,894	100.0		12.29	550.06	569.74

[1] See p. 59 for notes to these columns.

With due allowance for error in the returns several significant facts are brought out by this comparison. In average annual earnings for all wage earners electric machinery and supplies in 1910 ran considerably ahead of the boot and shoe industry, a difference lessened in 1911; in average weekly wage for all earners boots and shoes were also slightly behind. A glance at the proportions of the three classes of earners makes it clear that the higher average in the electrical works is due to the small per cent of adult women employed. Their relatively low wage does not pull down total earnings to the boot and shoe level, since the 75 per cent of adult men receive a weekly wage almost double that of the women. In the boot and shoe industry the men's average wage is over $1 per week lower than in the electrical works, but the 26,875 adult women making boots and shoes receive an average weekly wage about 50 cents more than their 2,768 sisters dealing with electrical machinery. In both of these industries the average wage for all wage earners runs ahead of that in the others listed. In the case of the boot and shoe workers this is certainly due to the higher wage for women. So far, then, the statistical statement confirms the common assertion; the boot and shoe industry does pay nearly the highest annual as well as the highest average weekly wage, and this is paid to over 85,000 workers, one-third of whom are women and girls.

Averages for weekly or annual earnings may be misleading, however, as related to the general body of workers. A few highly paid workers at the top of the scale may raise the whole average to a figure which is only arithmetically a truth. Further analysis of the wage scale is necessary to show what proportion of the earners receive the specified average amounts.

We take, then, the bureau's table of classified weekly wages for the week of employment of greatest number of wage earners in 1910, for the 11 leading industries, and classify the earnings under specified amounts, women wage earners 18 years and over alone being considered.

TABLE 15.—WEEKLY WAGES OF WOMEN 18 YEARS OF AGE AND OVER IN 11 LEADING INDUSTRIES IN WEEK OF MAXIMUM EMPLOYMENT, 1910, BY CUMULATIVE PERCENTAGES.

Source: Massachusetts Bureau of Statistics, Twenty-fifth Annual Report on the Statistics of Manufactures, 1910, pp. 90-137.]

Industry.	Per cent of women 18 years of age and over earning specified wages.					
	Under $6	Under $8	Under $9	Under $10	$10 or over.	$12 or over.
Cotton goods	17.6	56.1	75.2	88.8	11.2	1.8
Boots and shoes, leather	12.3	31.2	42.9	56.9	43.1	25.8
Woolen and worsted goods[1]	12.8	54.0	69.1	77.5	22.5	9.2
Hosiery and knit goods	27.8	62.8	76.6	87.3	12.7	3.4
Clothing, women's	19.8	48.5	63.2	76.1	23.9	10.7
Paper and wood pulp	18.6	76.8	92.2	96.6	3.4	.9
Confectionery	47.2	82.8	91.7	94.5	5.5	1.5
Boots and shoes, rubber	5.4	23.6	40.4	77.0	23.0	5.5
Clothing, men's	21.1	56.7	71.6	83.3	16.7	5.6
Boxes, paper	25.0	56.0	70.5	83.4	16.6	6.9
Electric machinery and supplies	19.6	50.6	73.9	87.1	12.9	2.7

[1] Given in the State report for 1910 as separate industries.

According to Table 15, 43 per cent of the women in shoe factories earned less than $9 for the busiest week, while in all other industries, except the rubber boots and shoes, the number earning under $9 varies from 63 to 92 per cent. When the wage reaches $9 and over, the other industries are far behind boots and shoes; only 57 per cent of its women workers earned under $10, while 43 per cent earned $10 or over. In other words, about 11,500 women, or 2 in every 5, earned $10 or over in the shoe factories, while of the women in the cotton mills only about 5,200, or 1 in 10 or 11, earned $10 or over. When the last group is reached, those earning $12 and over, the shoemaking women have shot far ahead in the race. In the woolen and worsted factories an average of 1 worker in 10 made $12 or over in the best-paid week, while the shoe factories paid that amount to 1 woman in every 4. Further, if all adult women earning $15 or over for the busy week are grouped we find among shoe workers 1 in every 10 in this class, in woolen and worsted goods and in rubber shoes about 1 in every 100, while in the cotton, paper, and electrical supplies factories only 1 woman in 500 made $15 and over in the busiest week.

Again, as concerns a proposed "minimum wage" of $9 a week, we take the average wages for 1911 as given and group them for 11 selected industries, as in Table 16, in order to show the proportion in each industry earning $9 and over as well as $10 and over.

TABLE 16.—EARNINGS IN THE THIRD WEEK OF DECEMBER, 1911, OF WOMEN 18 YEARS OF AGE AND OVER.

[Source: Massachusetts Bureau of Statistics, Twenty-sixth Annual Report on the Statistics of Manufactures, 1911.]

Industry.	Per cent of women 18 and over earning—	
	$9 and over.	$10 and over.
Cotton goods	27.4	12.8
Boots and shoes, leather	61.4	46.7
Woolen and worsted goods	33.4	24.8
Electrical machinery and supplies	31.4	19.3
Paper and wood pulp	5.5	2.5
Hosiery and knit goods	29.3	15.8
Boots and shoes, rubber	62.4	42.9
Confectionery	7.9	4.6
Clothing, women's	27.4	15.3
Clothing, men's	27.5	15.7
Hats, straw	67.8	54.9

Here the two shoe industries—leather and rubber—stand as leaders of the group in the proportion of workers receiving the minimum wage of $9; the workers in the rubber shoes do, indeed, run slightly ahead. In the latter trade, however, the number earning $10 per week and over represents a proportion far below that in the leather shoe industries. Comment on the significant facts made clear by this table need not here be amplified. The adult woman who can exercise free choice as to the industry she will enter will on this showing, if a wage of at least $9 be her main object, choose, above all others, the industry making rubber shoes. If she aim at $10 and over, she will make a vigorous effort to get into the shoe factory and be one of the 11,000 or more women whose skilled work commands this wage.

This study of the published statistics furnished by the heads of various industries confirms the general statement so far as it relates to the wage attainable at special periods. When work is plenty and the factories full and women for the most part working on full time, the shoe factory pays not only the highest wage to women, but pays this wage to the highest number of workers.

WAGES AS SHOWN BY PAY ROLLS.

The real value of the results obtained by study of published statistics must, however, be judged by comparing them with those obtained by other methods of investigation. The State statistics give the total number of adult women in shoe factories making the complete product in 1911 as 27,593. The pay rolls copied for this investigation from factories in the chosen centers include records for 4,400 women, or 16 per cent of the total number employed in the State. The wages from these pay rolls have been classified for three centers and are, in Table 17, compared with those for the whole State.

TABLE 17.—ACTUAL WEEKLY WAGES OF WOMEN 18 YEARS OF AGE AND OVER FOR WEEK OF EMPLOYMENT OF GREATEST NUMBER.

[Based on pay rolls.]

LYNN.

Establishment.	Number and per cent earning—				Number and per cent earning—			Total.
	Under $6	Under $8	Under $9	Under $10	Over $10	Over $12	Over $15	
The State[1]	12.3	31.2	42.9	56.9	43.1	25.8	10.3	....
Factory No. 1:								
Number	91	153	187	223	173	124	44	396
Per cent	22.9	38.6	47.2	56.3	43.7	31.3	11.1	....
Factory No. 2:								
Number	85	133	153	190	68	39	12	258
Per cent	32.9	51.6	59.3	73.6	26.4	15.1	4.6	....
Factory No. 3:								
Number	30	59	84	98	70	38	13	168
Per cent	17.9	35.1	50.0	58.3	41.7	22.6	7.7	....
Factory No. 4:								
Number	10	14	18	20	22	10	5	42
Per cent	23.8	33.3	42.9	47.6	52.4	23.8	11.9	....
The 4 factories:								
Number	216	359	442	531	333	211	74	864
Per cent	25.0	41.5	51.1	61.5	38.5	24.4	8.6	....

---

[1] Figures for the State are based on Twenty-fifth Annual Report on the Statistics of Manufactures, Massachusetts Bureau of Statistics, 1910, p. 94.

TABLE 17.—ACTUAL WEEKLY WAGES OF WOMEN 18 YEARS OF AGE AND OVER FOR WEEK OF EMPLOYMENT OF GREATEST NUMBER—Concluded.

BROCKTON.

Establishment.	Number and per cent earning—				Number and per cent earning—			Total.
	Under $6	Under $8	Under $9	Under $10	Over $10	Over $12	Over $15	
Factory No. 1:								
Number	27	74	86	120	127	78	38	247
Per cent	10.9	29.9	34.8	48.6	51.4	31.6	15.3	....
Factory No. 2:								
Number	9	32	55	79	88	53	19	167
Per cent	5.4	19.2	32.9	47.3	52.7	31.7	11.4	....
Factory No. 3:								
Number	19	38	51	74	110	57	21	184
Per cent	10.3	20.6	27.9	40.2	59.8	30.8	11.4	....
The 3 factories:								
Number	55	144	192	273	325	188	78	598
Per cent	9.2	24.1	32.1	45.7	54.3	31.4	13.0	....

MARLBORO.

Factory No. 1:								
Number	28	60	76	88	21	6	2	109
Per cent	25.7	55.0	69.7	80.7	19.3	5.5	1.8	....
Factory No. 2:								
Number	25	82	109	171	139	68	16	310
Per cent	8.1	26.5	35.2	55.2	44.8	21.9	5.2	....
Factory No. 3:								
Number	40	92	114	139	43	8	1	182
Per cent	21.9	50.5	62.6	76.4	23.6	4.4	0.5	....
The 3 factories:								
Number	93	234	299	398	203	82	29	601
Per cent	15.5	38.9	49.7	66.2	33.8	13.6	4.8	....

The records show for the several localities a wide difference in the distribution of wage groups, a difference to be discussed later. Our present interest is in the fact that the proportions earning small wages, namely, less than $6 or $8 or $9 per week, are in Lynn and Marlboro larger than those given in the statistics for the State. The pay rolls for Brockton represent nearly 18 per cent of the total number of female employees in that town, those for Lynn over 15 per cent, and those for Marlboro 27 per cent. The wages paid in the scattered inland towns are lower than those of the four centers investigated, as well as of all the larger towns with the exception of Haverhill. It is possible that the actual weekly earnings for the maximum week are overstated in the reports made to the State.

CLASSIFICATION OF WORKERS AND METHODS OF PAYMENT.

In any shoe factory where the work is really organized there are found two classes of workers concerned in the actual product. These are the handworkers and the machine operators. "Day workers" or "floor workers" as they are variously called, a few of whom are in each department of large factories, are boys and girls usually under 16 years old. They do a variety of odd jobs, as carrying orders or carrying stock to and from the machines, and though usually classed with the handworkers they really have no more to do with the making of a shoe than the bootblack on the corner. Outside of these classes are the usual wage or salary earning employees, such as drivers, sweepers, and machinists among the men, and the office and superintending force made up of both men and women. Their duties and earnings differ little from those prevailing in any organized industry and will not here be considered.

As there are two classes of workers in the making of a shoe, so there are two methods of paying for the work, namely, by time and by piece. Were each used for one class of workers only, consideration of the wage question would be greatly simplified. As a fact, piece payment for both classes is the general method, the exceptions to which are due to special conditions relating to the work. Beginners on table work or on cementing and blacking processes are usually put on payment by the hour, as otherwise their scanty earnings would be too discouraging. If, however, the beginner is seen loitering, she is promptly put on a piece-rate basis. Time payment is also made in cases where quality rather than quantity is of prime import. The men cutters in the best-managed shops work on time, as the hurried placing of patterns would mean great waste. In the stitching room the operator making sample shoes is paid by time, so in the packing room is the woman who gives the shoe a final inspection. In both cases mistakes due to haste would be fatal to the reputation of the firm. Among the handworkers the proportion paid by time, as learned from the pay rolls copied for this investigation, is usually less than 20 per cent, but in two or three factories it runs as high as 30 to 40 per cent and over. This variance is due less to local custom than to the quality or character of the product.

HANDWORKERS AND THEIR WAGES.

The work of the majority of handworkers does not differ in its nature from the strictly manual work done in other industries. Marking, matching pieces, tying or cutting threads, pasting, labeling, cleaning, etc., are also done in factories making boxes, paper goods, corsets, and many other kinds of products. In the actual movements and the amount of intelligence required, the work in these other factories is not dissimilar to that done in shoe shops, nor is the term "unskilled," usually applied to handwork, correct, except in a limited sense. In the shoe factory, as elsewhere, manual operations require accuracy of eye and touch, precision and dexterity of handling, together with the acquirement of a certain rate of speed which practice must render uniform. These qualities where really developed make the worker "skilled" in as true a sense if not to the same degree as the wood carver or the stonemason.

Among the handworkers in the shoe factories, the least skilled are those found in the sole-leather department, if there is one. Their work, described in Chapter III, requires little judgment and less dexterity, while the pieces of leather they handle are of less value than those in the workroom above. This kind of handwork is paid for, therefore, at rates lower than those prevailing in the packing or stitching room. The foreign women introduced into the sole-leather department of late years will work for this lower wage until they are partly "Americanized." They are constantly leaving for better work or to enter other factories, but others more newly "over" are ready to take their places. Heel builders are paid by the piece and earn the highest wage given in the sole-leather department; among the steady and continuous workers $10 or $12 per week is a common wage.

In the packing department the handworkers earn higher wages, equal in many cases to those of machine operators. It is the experienced handworkers in the packing and stitching rooms who help to make up the 9 or 10 per cent earning $9 or $10, and the smaller proportion earning as high as $15 a week. They deal with the product in its most valuable stage of practical completion, and upon their care depends its final quality.

In general, the average wage of the handworkers runs below that of the machine operator, though this difference varies with locality and type of product. As compared with wages paid for handwork in other industries, the scale in the shoe factories is much higher. This fact seems to be related to certain conditions peculiar to the industry. Among these is the value of the individual parts handled by the operator. In some industries spoiling a certain proportion of the material is not a serious loss; in the shoe industry it is, and, therefore, to handle the pieces, better skill and brains must be hired. These command their price. Again, the handwork is closely related to the machine work, so that in the stitching room especially, the two classes of workers are in constant cooperation. The general scale of stitching-room prices comprehends piece operations, whether done by machine or hand.

Two facts of importance in relation to women handworkers in shoe factories should be noted: First, the work is not for the most part unskilled, but demands the qualities essential in the machine operator; second, the wage for steady adult handworkers, while below that of the machine operators, is, on the whole, higher than that earned for work of a similar kind in other industries.

Comparison between average wages of the two classes of workers for one large factory in each of the several localities is given in Table 18.

TABLE 18.—AVERAGE WEEKLY WAGES OF ADULT HANDWORKERS AND MACHINE OPERATORS WORKING 46 WEEKS OR MORE IN THE YEAR.

[Based on pay rolls of 4 factories.]

One large factory in—	Handworkers.						Machine operators.					
	Number.	Average wage.	Number and per cent earning—				Number.	Average wage.	Number and per cent earning—			
			$9 and over.		$10 and over.				$9 and over.		$10 and over.	
			Number.	Per cent.	Number.	Per cent.			Number.	Per cent.	Number.	Per cent.
Brockton	24	$9.70	13	54.2	9	37.5	63	$10.48	52	82.5	35	55.5
Lynn	93	8.00	40	43.0	37	39.7	147	9.50	98	66.7	79	53.7
Marlboro	60	7.92	19	31.7	11	18.3	131	8.76	66	50.4	43	32.8
Chelsea	62	7.82	16	25.8	10	16.1	100	8.62	47	47.0	27	27.0

The steadiness with which the women dealt with in this table are at work is fair evidence that they are responsible workers whom the employers desire to retain even through the slack times. It is reasonable, therefore, to suppose that their wages show what the better grade of workers in each class may receive. The handworkers in every case earn less than the machine operators, but the difference ranges from 78 cents in Brockton to $1.50 in Lynn. The figures for Lynn are exceptional; in the other three towns the difference ranges only from 78 to 84 cents, the smallest difference being shown in Brockton, where both hand and machine workers have the highest earnings.

With regard to the suggestion of a minimum wage of $9 a week, it is noticeable that the proportion of handworkers who earn as much or more than $9 is strikingly small, being only a little over half in Brockton and running down to about one-fourth in Chelsea. The machine operators make a better showing in this respect, but even among them the proportion falling below $9 ranges from nearly one-fifth to over one-half.

MACHINE OPERATORS AND THEIR WAGES.

If the processes among handworkers in the shoe factory do not differ essentially from hand processes elsewhere, the contrary is true of the chief work in the stitching room. Only so far as it is stitching does it resemble any other factory work. Otherwise not only in the material and the machinery but in the great variety of "pieces," the stitching of shoes involves processes not only peculiar but so extremely various that each has its separate valuation on the price list. Consideration of conditions affecting the make-up of the wage must first take into account the great variety in operations and prices, resulting from the modern organization of shoemaking, for it is chiefly this that makes the method of piece payment universal in the industry and inclusive of almost its entire working force.

The piece prices have certain relative ratios for different operations, but in each special case they are subject to a constant variation dependent on the nature and value of the product. A vamper, for instance, may work one week to complete an order demanding vamps paid for at the rate of 16 cents per dozen pairs; the next week the order may call for vamps worth 11 cents a dozen pairs. Various methods are used to fix the new rate demanded by a new cut or shape, among which the following is common: A skilled or "sample" stitcher, who can stitch all parts of the shoe, is given the vamping in a new style of shoe to stitch for a 10-hour day. She is paid the maximum rate, say, 25 cents an hour. She is found able to stitch 200 pairs in 10 hours, or 20 pairs in one hour. It is clear that if 20 pairs are worth 25 cents, 12 pairs are worth 15 cents, and the latter is fixed as the rate. The piece rate is, then, at bottom, a payment for so much time. Though some of the operators will stitch the 20 pairs of vamps, or even more, in an hour, it is evident that the majority will not attain the speed of the expert stitcher. This is especially true of operations done by the less experienced. Were the piece price translated into a time rate, it would seldom, indeed, reach 25 cents an hour. The piece rate is usually per dozen pairs of shoes, except for making buttonholes and putting on buttons, which are paid for by the hundred. The variety of operations and of piece prices are illustrated below by sample schedules taken from factory pay rolls. In cases where the product shows great variety, the diversity in the scale of piece prices becomes bewildering. It reaches the extreme point in some of the Lynn factories, where men's, women's, youths', misses', children's, and infants' shoes of various materials and styles are all made under one roof. The result is a complex schedule of payment for each operation.

TABLE 19.—NUMBER OF PRICES PREVAILING IN SHOEMAKING OPERATIONS PAID BY THE PIECE.

Operations.	Number of prices.
Hand operations:	
Blacking	4
Button sewing	1
Cementing	3
Counting	3
Finishing	3
Marking	7
Packing	6
Pressing	7
Rubbing	2
Trimming	4
Tracing	5
Tying ends	2
Machine operations:	
Barring	3
Backstaying	9
Binding	9
Button machine	2
Machine operations—Concluded.	
Buttonholing	4
Closing	5
Eyeleting	3
Perforating	6
Pressing	3
Skiving	5
Staying	6
Toe closing	2
Fancy stitching	2
Stay stitching	6
Strap stitching	3
Tip stitching	6
Tongue stitching	6
Top stitching	8
Vamping	11
Zigzagging	3

TABLE 20.—PIECE PRICES PAID FOR OPERATIONS ON DIFFERENT GRADES OF SHOES IN THE SAME FACTORY.

Operation.	Price per dozen pairs.	Operation.	Price per dozen pairs.
Closing seams:		Staying:	
1 seam, leather	$0.07	Button shoes	$0.08
2 seams, leather	.14	2-strap velvet	.15
2 seams, cloth	.18	2-strap satin	.18
2 seams, velvet	.25	2-strap plain	.20
"Ooze" button shoes	.40	2-strap velvet	.25
Top stitching:		Vamping:	
Button shoes	.50	Button oxfords	.50
Polish shoes	.40	Flat circular vamp	.75
Button oxfords	.50	Flat blucher	.90
Button oxfords, 2 straps	.60	Flat blucher, with barrings	.20
Button oxfords, 3 straps	.90	Cylinder button with close row	1.20
Pumps	1.20	Cylinder button with overlap	2.10

At first sight it would seem that the stitcher doing the tops of pumps at $1.20 per dozen pairs would make a much higher wage than her neighbor sewing the tops of button shoes at 50 cents per dozen pairs. She probably does make and deserve more, as the finest work is given to the expert stitcher who will not spoil it. Nevertheless the difference in rate represents pretty closely a difference in the amount of time required, and the two variations tend to create a balance in the main satisfactory to each worker. Unusual skill has value always difficult to estimate; it is not easy to decide whether this is really rewarded by the piece method of payment.

Not only is there great variance in the scale of prices for the different varieties of each process, but the occurrence of a change is usually impossible to foresee. The stitcher seldom knows what variety of her special operation she will be given in a succeeding month or even week. Hence, she can not know her rate of payment. The finer her work and the better the grade of shoe, the more pronounced is this uncertainty. Yet this uncertain piece price is the most important factor at the basis of her wage. How much must be done at a specified rate in selected operations in order to make $10 a week is shown from the pay-roll records of a large factory, as given in Table 21.

TABLE 21.—PIECE RATES IN A LYNN FACTORY WITH NUMBER OF PIECES HANDLED TO MAKE $10 PER WEEK.

Operation.		Rate.		Number pieces handled at—	
		High rate.	Low rate.	High rate.	Low rate.
Backstaying	per dozen pairs	$0.10	$0.04½	2,400	5,328
Barring	do	.02	.01	12,000	24,000
Beading	do	.04	.02	6,000	12,000
Closing on	do	.03½	.03	6,840	7,992
Foxing stitching	do	.14	.08	1,704	3,000
Lining stitching	do	.06	.02	4,000	12,000
Perforating	do	.07	.03½	3,420	6,840
Second-row stitching	do	.07	.02	3,420	12,000
Tip stitching	do	.03	.03	7,992	7,992
Tongue stitching	do	.05	.03	4,800	7,992
Vamping	do	.17	.10	1,392	2,400
Buttonholing	per hundred pairs	.04	.04	25,000	25,000
Eyeleting	do	.03	.01	66,666	100.000

Piece prices show bewildering variety not only for operations in the same factory, but for work, apparently of a similar sort, done in different factories. The similarity is usually apparent only; a slight difference of cut in the shoe means a few stitches more or less, and where stitches are literally counted, the count affects the price. Comparison between factories is, therefore, futile unless both turn out practically the same product made by precisely the same processes. Such an identity we have not found.

A second uncertain element in the wage is the behavior of the machine which, however wonderfully adapted to the business in hand, has a soulless insensibility to the exigencies of the work or the economic need of the worker. The Singer sewing machine used is heavy and strong in its framework, but necessarily delicate in the parts that do the stitching; the Reece buttonhole machine has a complicated mechanism liable to disarrangement. Care and management of the machine are part of the daily task, but the time taken for repairs is not paid for. Occasionally a serious breakdown occurs; if, then, there is no similar machine in the room for her to use, the operator's work is stopped for the day, possibly for two or three days. It is to the interest of the factory that such loss of time should be minimized, but all the machines can not be kept in perpetual running order, even under the best management. The cessation of payment on the stoppage of the machine is essentially a penalty which the operator pays, sometimes justly for carelessness, but as frequently quite undeserved. The loss it entails falls less frequently on the expert operator, yet no operator is exempt.

A third factor influencing the amount of wage for both hand and machine workers is the dependence of one department upon another. The lasters depend upon the stitchers, the stitchers upon the cutters, the cutters upon the stock room, and the stock room waits to get out its leather in accordance with the order tickets from the office. However methodical may be the management, there are days when one department must wait upon another, or one lot of material be finished before another is on hand. No worker is sure she will have work for all the hours in any one day; in fact, women are not seldom seen reading or sewing while they wait for material to be supplied.

There is, fourth, the deduction of fines on account of spoiled or imperfect work. The skilled worker will be less affected by loss of this sort, nevertheless she will occasionally suffer from it. Just the amount per week or month nibbled from the wages by fines is difficult to determine for any special worker. In most factories the simple calculation of amount due, less the fines, is recorded on the pay roll, so that the actual wage is uncertain. Women privately interrogated as to their wage will seldom mention fines, unless to complain of some special grievance. In the case of time workers payment is made by the hour or fraction thereof, so that fines for tardiness are not noted as such. In all factories fines are imposed for imperfect work, and these probably more than meet the wages of the fixers and repairers in the packing room.

CAUSES FOR VARIATION IN EARNINGS.

Among the conditions of the work itself the foregoing most strongly affect the wage. The amount of work on hand at different seasons, although it also affects the weekly wage, is more justly classed with the conditions upon which the annual earnings depend. It is evident from the data given that wages per week, even in the months of maximum employment, fluctuate to a surprising extent. Skilled, steady, and regular though the operator may be, the actual payment per week seldom touches the amount that, given all conditions favorable, is the potential wage. The tables below are illustrative of wage variation. They were chosen for a period of industrial activity and the workers were among the steadiest found on the pay roll.

TABLE 22.—VARIATIONS IN WAGES OF HANDWORKERS.

[Based on pay rolls.]

1. Three months' earnings for two women in the same factory, doing "turning."

Period.	Earnings in—		
	August.	September.	October.
A's earnings:			
First week	$6.23	$5.88	$3.15
Second week	6.65	6.93	4.76
Third week	6.65	6.65	7.21
Fourth week	7.39	4.13	5.37
Fifth week	5.32		
Average weekly earnings	6.45	5.90	5.12
B's earnings:			
First week	13.44	11.13	7.21
Second week	8.19	12.11	6.65
Third week	.14	10.71	12.67
Fourth week		6.16	9.10
Fifth week	9.52		
Average weekly earnings	6.26	10.03	8.91

TABLE 22.—VARIATIONS IN WAGES OF HANDWORKERS—Concluded.

2. Three months' earnings for two women in the same factory, doing "crippling."

Period.	January.		February.		March.	
	Number of days worked.	Earnings.	Number of days worked.	Earnings.	Number of days worked.	Earnings.
C's earnings:						
First week	6	$6.29	6	$6.56	6	$6.88
Second week	6	6.02	6	7.43	6	7.50
Third week	6	7.55	6	7.47	6	7.50
Fourth week	6	7.57	5	5.90	6	7.50
Fifth week	6	6.56				
Average weekly earnings		6.79		6.84		7.35
Average daily earnings		1.13		1.16		1.22
D's earnings:						
First week	6	9.85	6	9.59	6	8.71
Second week	6	9.59	6	9.59	5½	8.43
Third week	6	9.59	6	9.50	6	9.23
Fourth week	6	9.59	6	6.33	6	9.50
Fifth week	6	9.59				
Average weekly earnings		9.64		8.75		8.97
Average daily earnings		1.61		1.46		1.53

A, B, C, and D were handworkers employed in the same factory. For C and D the earnings are shown for the period of high activity, from January through March; for A and B, from August, usually the month of recovery after a dull season, through October. The number of days worked by A and B each week was not stated on the pay roll. Two legal holidays, however, made A's earnings low in the first weeks of September and October. B, on the contrary, earned $11.13, a wage above her average, in the holiday week of September. Irrespective of holidays, it will be seen that the fourth week of September was a low week for both; there was not full work to be had. The earnings of C and D show far more regularity, though even here the difference of nearly $1 between D's average earnings per week for January and February is a serious matter to one whose expenses must be closely fitted to earnings. Nor did D's average wage for March make up the loss in February. The pay roll does not show whether the loss of half a day in March was due to the worker's choice or to lack of work.

TABLE 23.—VARIATIONS IN WAGES OF MACHINE OPERATORS WORKING EVERY WEEK FOR THREE MONTHS.

Period.	January.		February.		March.	
	Number of days worked.	Earnings.	Number of days worked.	Earnings.	Number of days worked.	Earnings.
E's earnings (a vamper, 42 years old):						
First week	6	$14.50	6	$14.15	6	$13.11
Second week	5	11.87	6	14.78	6	16.66
Third week	6	16.00	5	12.36	6	18.04
Fourth week	5	9.50	6	15.96	6	15.88
Fifth week	6	15.00				
Average weekly earnings		13.38		14.31		15.92
Average daily earnings		2.39		2.48		2.65
F's earnings (a tip stitcher, 24 years old):						
First week	5½	5.56	6	7.84	6	6.52
Second week	5½	7.56	6	7.67	6	7.63
Third week	6	8.12	1½	1.45	6	8.39
Fourth week	6	7.27	5	5.21	6	6.84
Fifth week	6	7.53				
Average weekly earnings		7.21		5.54		7.35
Average daily earnings		1.24		1.20		1.23
G's earnings (a buttonhole operator):						
First week	6	14.53	6	15.06	6	9.71
Second week	6	10.88	6	14.12	6	15.77
Third week	6	9.93	6	11.45	6	18.10
Fourth week	6	16.01	6	11.65	6	20.00
Average weekly earnings		12.84		13.07		15.90
Average daily earnings		2.14		2.17		2.65

In Table 23 E and F were workers in the same factory; G was from a different locality. The period chosen was again one of high activity in both factories, a public holiday occurred but once in the three months, and the three operators were at work every week. The average weekly wage for E was about $2.50 more in March than in January. This was not merely because she lost two days in January and none in March, but because the two weeks in March showing highest earnings were weeks of most favorable industrial conditions. What wage should E reasonably have expected if all her weeks showed similar conditions? Since in three weeks of the period she earned about $16, it is not unfair to take that as representing the wage she might reasonably have expected, since in a week of unusual exertion in March it was exceeded by $2. For January, then, her average weekly wage was more than $2.50 below her earning capacity; in February $1.70 below, and in March nearly approached it. E was a steady, experienced worker. It will not escape notice that she worked but five days in the week twice in January; but it was not absence that made her wage below her earning capacity in 5 other weeks out of the 13.

F's wage shows much more variability, but this is not wholly due to her absences. She worked all the working days of March, yet showed a difference of $1.87 between her lowest and highest weekly wage for that month. G, who worked the Reece buttonhole machine, earned $10 more in her best week than in her worst, and both occurred in the same month. Her wage of $18 is considerably below her highest, but how seldom she earned this is clear at a glance. What may be called her losses per week range from $2 to nearly $9.

Enough has been said to show that even among the steadiest workers the factors forming the basis of the wage vary so greatly from week to week as to make certainty about earnings impossible. F knows she will earn about half the money G does, and that is practically all she knows. G knows that when work is abundant and conditions favorable she may earn as much as $20 a week, but that under conditions which she is powerless to prevent her earnings may sink to less than half that sum. It is apparent both that it is very difficult for the worker to adjust her expenditures to her earnings, and that it is practically impossible for her to form a reliable estimate of what her yearly income is. As was said at the beginning of the chapter, estimates of average earnings, whether made by employer or employee, are apt to be wide of the mark in an industry where the weekly earnings show such variation.

CHAPTER V.—ANNUAL EARNINGS OF WOMEN SHOE WORKERS.

CONDITIONS AFFECTING EARNINGS.

With definite data on hand as to the weekly wage of individuals or of groups, it might seem logical to proceed at once to multiply this wage by the number of working weeks in the year and so obtain the annual earnings. For the office force in the shoe factory this can be done. We can ascertain the weekly rate of pay for clerk or stenographer, find that it is not cut down by a two weeks' vacation, and on the basis of 52 weeks of work we can readily calculate the yearly income. But as concerns earners in the workrooms, such a calculation is impossible. Two constant conditions forbid this simple arithmetical process—the seasonal fluctuation in the numbers employed, and the instability in factory workers as a class. Seasonal fluctuation in numbers is indicated by the difference between the numbers employed in times of maximum and minimum industrial activity, while the degree of instability in a working force is shown by the relation of the maximum number in any one week or month to the total number employed in any one year. As a result of both factors, few women work at shoemaking all the year round and few earn for the year the full amount indicated by a specified weekly wage.

SEASONAL FLUCTUATION IN NUMBERS.

Seasonal fluctuation, to take up the first condition, though always a feature of industrial production, has become in recent times so marked as radically to affect the whole life scheme of the factory classes. In most shoe factories it is now a recognized condition. It is not, it is true, in this industry subject to the extremes found in several other trades, yet the rise and fall in numbers employed is pronounced in the whole State, and the difference between maximum and minimum activity is considerable in any locality and very great in some. According to the State statistics for 1911, seasonal fluctuation in shoe factories is greater than that in any other leading industry except the confectionery and women's clothing industries. These similarities and differences for 11 leading industries of the State are shown in Table 24.

[illegible] OF ALL WAGE EARNERS EMPLOYED [illegible] INDUSTRIES IN 1911.

[[illegible] Annual Report on the Statistics of Manu[illegible] pp. 2-12.]

	Maximum number employed.	Minimum number employed.	Per cent minimum is of maximum.
[illegible]	118,366	94,701	80.0
[illegible]	92,539	65,182	70.4
[illegible]	55,979	40,562	72.5
[illegible]	19,622	16,268	82.9
[illegible]	14,722	12,716	86.4
[illegible]	10,826	8,476	78.3
[illegible]	8,581	7,602	88.6
[illegible]	7,533	4,880	64.8
[illegible]	7,014	4,113	58.6
[illegible]	5,841	4,494	76.8
[illegible]	4,784	3,557	74.4

[illegible] may be classed with several of those [illegible] in the amount of its general fluctuation, [illegible] from year to year of its seasons of high [illegible] be generally stated that the late fall or early [illegible] high tide of employment, with some stability [illegible] rapid ebb in the early spring, partial recovery [illegible] and irregularity in the early fall. However, [illegible] taken from the State statistics for a period of [illegible] the danger of making even this general statement [illegible]

[illegible] IN NUMBERS IN MASSACHUSETTS SHOE FACTORIES IN [illegible] AND MINIMUM EMPLOYMENT FOR A PERIOD OF FIVE [illegible]

[[illegible] reports of the Massachusetts Bureau of Statistics.]

[illegible]	[illegible] employment		Minimum employment.		Difference in number employed in months of maximum and minimum employment.	
	[illegible]	Number employed.	Month.	Number employed.	Number.	Per cent.
[illegible]	[illegible]	74,937	December	69,949.	4,988	6.7
[illegible]	[illegible]	71,780	June	62,075	9,705	13.5
[illegible]	[illegible]	79,073	May	70,316	8,757	11.1
[illegible]	[illegible]	82,707	October	67,189	15,218	18.4
[illegible]	[illegible]	83,234	May	74,639	8,595	10.3

It will be noted that the decrease in the number of workers in the minimum month of 1907 was comparatively small; in the two succeeding years this per cent was about doubled, while in 1910 it was nearly three times that of 1907. In the latest report the difference in numbers between the months of maximum and minimum employment is about 10 per cent of the maximum number. The increasing fluctuation for some years was apparently due to the rapid increase in manufacture; for the more recent reduction, better business organization is perhaps partly responsible, as well as the increase in product of certain large concerns doing business on a stock basis. The numbers here given for the whole State show smaller differences than may be found in various localities, in some of which the ups and downs are far more abrupt. Table 26 does, however, clearly illustrate the fact that between nine and ten thousand workers drop out of the industry at certain seasons, and shows also the dull and busy months. The table and the accompanying graphic chart show the fluctuations in numbers employed in the industry in the State each month, from October, 1910, to September, 1911.

WAGE EARNERS EMPLOYED IN SHOE FACTORIES IN MASSACHUSETTS EACH MONTH, 1910, TO SEPTEMBER, 1911, IN PER CENT OF AVERAGE FOR THE YEAR.

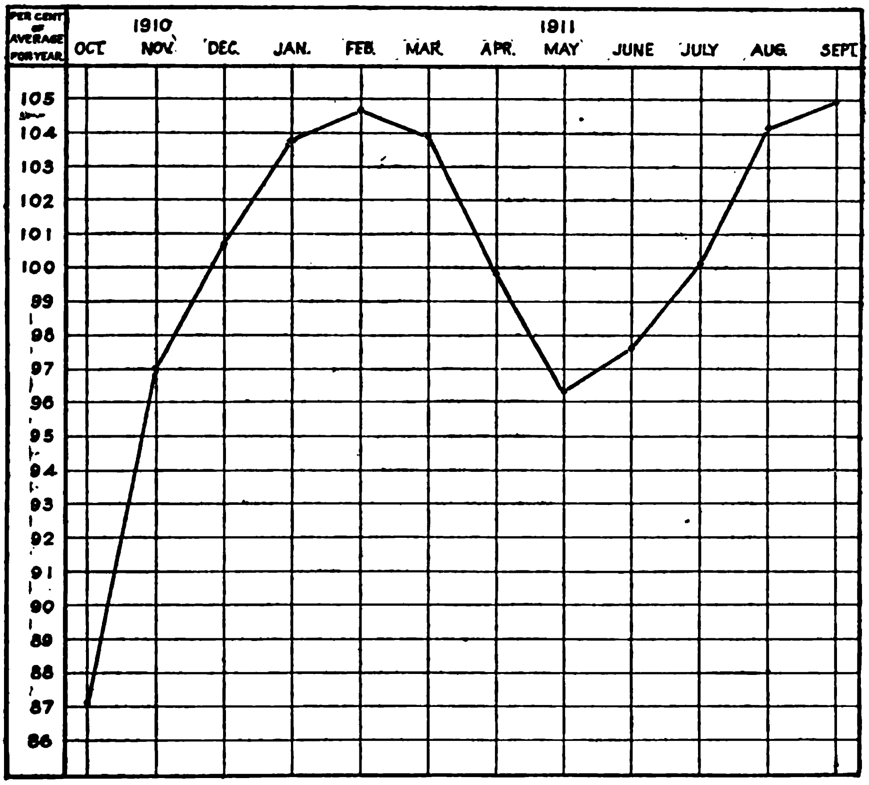


TABLE 26.—NUMBER OF WAGE EARNERS EMPLOYED IN SHOE FACTORIES IN MASSACHUSETTS EACH MONTH, OCTOBER, 1910, TO SEPTEMBER, 1911.

[Source: Massachusetts Bureau of Statistics, Twenty-fifth and Twenty-sixth Annual Reports on the Statistics of Manufactures, 1910 and 1911, p. 56.]

Month.	Number of wage earners employed.	Per cent of the average for the year.
1910.		
October	67,489	87.1
November	75,185	97.0
December	78,052	100.7
1911.		
January	80,438	103.8
February	81,134	104.7
March	80,482	103.9
April	77,345	99.8
May	74,639	96.3
June	75,650	97.6
July	77,555	100.1
August	80,648	104.1
September	81,260	104.9
Average	77,490	100.0

The phenomenon of seasonal fluctuation in the shoe trade can not be explained by any single cause, but the most effective seems to be the system of manufacture. Two systems are in general use in the shoe trade. By the stock system the factory manufactures a certain amount of product each month and sells it to the buyer who comes to the factory. By the order system lots of shoes are made only to fill orders sent in by the traveling salesmen representing the firm and taking samples of its special products to the retailers. Many large factories maintain their own retail shops, placed in many towns and cities, thus creating, as well as filling, the demand for special shoes. The stock system prevails in many factories making a cheaper grade of shoe bought by consumers who dislike change in style or material. This is especially true for men's and boys' shoes sold in agricultural districts in all parts of the country. Some factories in the inland Massachusetts counties have made practically the same kind of shoe for workers in the field, or the same heavy boots for the lumbermen in the forest, for half a century. Their amount of work is about the same the year round, the working force shows little change in numbers, and they usually run every week in the year. The stability of the work is taken into account by the owner who puts his piece prices below those of factories run on the order system. He can do this the more safely, as stock work is ordinarily done in towns where no other industries are serious competitors and where the cost of living is less than in centers near the seaboard.

Seasonal fluctuation reaches its extreme in shoe factories using the order system. There is not, it is true, the dreaded short term of nerve-racking activity, as in the millinery trade in early spring and fall, or the rush time of the confectionery factories, with December's number of girl workers showing a 54 per cent increase over July. The period of high employment for the shoe trade usually extends over the eight months from the first of August to the end of March. In the latter part of March a decided drop usually occurs, reaching its lowest point in the end of April, when many factories close altogether for stock taking. Through May and June there is a steady increase in the ranks of workers, and in the month of August more people are making shoes than in the month of January. At the end of September there is again another though far less decided drop for stock taking; but in the first week of December most shoe factories are at their busiest.

Under the order system, at present the prevailing method, marked seasonal fluctuation seems inevitable. The retailer before he orders must know what is likely to be the best seller; the manufacturer must wait for the orders from his traveling men. Between the rush of orders for winter boots and for summer shoes there is a period when both the retail shop and the factory are feeling their way. Orders come in slowly and the working force is reduced. Roughly speaking, then, the between seasons are early summer and midwinter; specifically, they may be any month for a factory worked on the order system. Factories making slippers or infants' shoes have their busiest season in the three months preceding Christmas, their dullest directly after. This is somewhat out of line with the ordinary shoe-factory season. The main cause of the recent general adoption of the order system is undoubtedly the rapid changes of fashion and the uncertainty in regard to the styles that will be used. In the centers manufacturing women's shoes, while it is known that high shoes will be worn more in winter and low shoes more in summer, the present demands as to material and cut vary surprisingly each season. Whether the ladies will favor, for the coming season, low shoes with two or three straps or a strapless pump is a vital question which must be settled by the retailer before he places his order with the factory. The uncertainty as to what will be the "taking" style for the coming season of sale operates to keep many factories idle or with a force greatly reduced until the orders come in all at once and a rush season begins. These changes affect most the high-grade shoes, yet even in the cheaper shoe some taking quality must balance the inferior material and finish. Even in men's shoes fashions vary, though to a less extent. The cut of the vamp changes, the buttoned and the laced shoe are favored alternately by "the younger set" to whose choice the high-grade factories must defer.

Not only does fluctuation in fashion create changes in the factory force as a whole, but it affects the individual operator, especially among the women. When the mode prescribes buttoned shoes for men or women, buttonhole operators and button operators are in great demand, their payment per piece goes up, and hundreds strive to learn these special operations by the haphazard methods customary. The next season fashion chooses laced shoes, and the button and buttonhole operatives, thrown out of work, are dispiritedly seeking handwork or trying to learn the stitching processes.

The records of any factory of considerable output show two months, far apart in the calendar, which have a larger number of operatives than their neighbors on either side. These two periods of activity are characteristic, but it is quite as impossible to fix their occurrence for the individual factory from season to season as it is for the locality as a whole. All that can be predicted under the order system is that the busy season will begin when the orders arrive. Every important factory installs machines sufficient in number to meet the demand of the busiest weeks, and the expense of rental for idle machines must be reckoned in as cost in fixing the price of the product. Work on winter shoes usually begins in July and runs through the early fall; while the shoes for summer are largely made in the first three months of the year. Some of the larger firms do the bulk of their work in a few months and run slack the rest of the year. With their ample equipment, however, if they pick up large orders they can at any time call in their old hands and speedily finish a quantity of work. As a rule, fluctuation in numbers is sharpest in the large factories where big orders come in to be completed in a few weeks.

There are in Massachusetts eight legal holidays; these, together with the 52 Sundays, if deducted from the 365 days of the year, give 305 working days for the factory. Under the order system the power in most factories is running for 290 of these days, or for 50 working weeks, though not 50 full weeks. A common though not universal practice is to shut down factories altogether for stock taking during one week in April and another in November. The general situation is, however, made up of almost as many variations as there are factories. The system of manufacture, the kind of product, the special variety of that kind in an individual factory, even the character of the working force, shift the months and weeks of maximum activity in any one center around the calendar.

While the active seasons in no two localities are strictly contemporaneous, and while in any large center differences of product prevent corresponding periods of activity in the factories, yet a few local tendencies may be discovered. Lynn, for instance, shows the greatest seasonal fluctuation, and the finer the grade of shoe made the more the number of workers varies from month to month. This is because Lynn makes shoes for women, whose buying is dictated by the change in fashion. The busiest months vary greatly among the factories, while dull months generally coincide closely. For the Lynn industry as a whole, then, the busy times are indeterminate.

the dull season well marked. This condition, wherever it occurs, has an important bearing on both possible and actual annual earnings. Table 27 below shows typical variation in numbers employed for 13 factories in six localities.

TABLE 27.—MONTHS OF MAXIMUM AND MINIMUM EMPLOYMENT AND NUMBER OF WOMEN EMPLOYED IN 13 SHOE FACTORIES.

[Based on pay rolls.]

Locality.	Maximum employment.		Minimum employment.	
	Month.	Number employed.	Month.	Number employed.
Brockton:				
Factory A	August	183	April	111
Factory B	February	246	September	189
Factory C	October	171	May	137
Lynn:				
Factory A	March	416	July	361
Factory B	September	39	May	22
Factory C	January	254	July	221
Factory D	December	160	May	65
Beverly: Factory A	October	65	February	50
Marlboro:				
Factory A	September	383	November	258
Factory B	December	108	September	94
Chelsea: Factory A	January	409	May	303
Boston:				
Factory A	do	33	April	14
Factory B	February	20	September	16
Total		2,487		1,841

INSTABILITY OF WAGE EARNERS.

Seasonal changes in the amount of work available in shoe factories, as in many others, augment instability in the working force. Nor is this instability in numbers merely; it means a shifting in the personnel of the wage earners connected with any one factory. This is most pronounced where the order system is most in use. In Lynn, for instance, the center of women's footwear, it was found that apparently but 18 per cent of the women listed worked the full number of weeks during which the factories were run. Whenever the months during which work will be maintained with some regularity in the factories of a group are not identical there is a natural endeavor on the part of the wage earners to prevent loss by shifting from one factory to another. It is usually an unprofitable expedient. Temporary relationship to any kind of work may increase experience and perhaps general ability, but general ability is at a discount in a closely differentiated trade; the quality desired is special expertness. In the new connection differences in method and product mean at least a temporary decrease in speed and therefore, for the pieceworker, decrease in wage. Again, though at a given time work in one factory may be scanty and in another abundant, a few weeks or even a week may reverse the situation. To make every week in the year a wage-earning week is a baffling puzzle, and in the unsuccessful attempts to solve it restlessness, discouragement, and indifference to the quality of work naturally result. Nevertheless the effort is constantly made and there is in consequence a high degree of shifting from factory to factory. The varying amounts of instability are indicated in Table 28.

TABLE 28.—INSTABILITY OF WOMEN WORKERS BY RELATION OF MAXIMUM TO TOTAL NUMBERS EMPLOYED IN 1910 AND 1911 (MINORS INCLUDED).

[Based on pay rolls of 13 factories.]

Locality.	Number of women employed—		Per cent maximum number is of total.
	During the year.	In maximum week.	
Brockton:			
Factory A	324	198	61.1
Factory B	341	255	74.7
Factory C	265	184	69.4
Total	930	637	....
Lynn:			
Factory A	767	442	57.6
Factory B	69	43	62.3
Factory C	637	291	45.7
Factory D	301	168	55.8
Total	1,774	944	....
Marlboro:			
Factory A	523	386	73.8
Factory B	111	109	98.2
Total	634	495	....
Beverly: Factory A	73	66	90.4
Chelsea: Factory A	773	421	54.5
Boston:			
Factory A	71	33	46.5
Factory B	20	20	100.0
Total	91	53	....
Grand total	4,275	2,616	61.2

There is also migration from one shoe town to another in the same group, especially where train or trolley service makes transit easy. Lynn draws workers from Salem, Beverly, Peabody, Danvers, and even from Chelsea and Boston, and these towns in turn draw help for their factories from Lynn. In the Plymouth County group, Brockton is closely connected by the "electrics" with Whitman, Abington, and many outlying towns, most of which have shoe factories of their own. Marlboro, Hudson, and Framingham are more remote from cosmopolitan influence, and yet even here shifting in the working force is found as between town and village factories.

Instability, since it is for the most part characteristic of an unattached younger group of workers, is naturally less prominent among the women. It is the younger men and girls for the most part who shift from factory to factory and from town to town. "Family" men and women reluctantly break industrial connection or change from one locality to another.

The best firms so clearly recognize the industrial disadvantage of a shifting personnel in their factory force that they take various means to lessen it as much as possible. In the outskirts of Boston a firm employing 5,000 operatives in the course of a year will not engage workers outside of an area within a few minutes walk or ride of the factory. This firm makes a good deal of stock product; it does not, however, give employment to the majority of its workers for the greater part of the year. Labor men claim that the smaller factory is better for a community. The fact that its smaller output must be more or less continuous in order to make a profit tends, they say, to steady the work, while the closer connection of interests between employer and employees tends to steady the workers.

Local differences in the shifting of women workers and in the degree of their unemployment are marked. For the purpose of ready comparison the total numbers of women in each of the four important centers studied have been divided into five classes according to the duration of their employment for the year. Class 1 comprises those who work every week in the year; class 2, the "steady workers," or those who are employed for 46 weeks or more; class 3, the "seasonal workers," who continue through or partly beyond the season of greatest activity, namely, 36 to 45 weeks, inclusive; class 4, the "extra force," working from 13 to 35 weeks during the active season; and class 5, the "temporary workers," who are connected with the factory 12 weeks or less.

In Marlboro, where the factories run continuously for 52 weeks in the year, the first two classes really merge into one. Since a large proportion of women work the whole 52 weeks, it has seemed more exact to put these into a separate class, which is represented by a very small per cent in Lynn, and in Brockton is not represented at all. The large proportion in the first two classes in Marlboro illustrates the fact that not only the system of work but also the character of the community affects the stability of the working force. Figures for Boston and Chelsea have not been given, because the factories studied in this locality differ so widely in size, in the systems of work, and in the conditions of their surrounding sections that they can not be considered as belonging to a class, however interesting they may be when studied separately. For the same reason Beverly is omitted from the statements for Lynn.

The proportion of "temporary workers," in class 5, differs widely in the three localities, its maximum being found in Lynn. This class is by no means made up of one element. The "temporary workers" are, in fact, broadly divided into the occasional and the unstable classes. The former are skilled women, who go into the same factory season after season, work a few months at high wages, and retire into private life for the rest of the year. Their term of service, usually sought by the management, is voluntarily brief. The unstable class, on the other hand, form much the larger proportion, and is made up of various elements. Many, after a week or two of trial work, leave the factory in discontent; some continue longer on a low time wage, yet are of too little value to be retained. Many are "learners," who, convinced they are not getting on fast enough in one factory, carry their short experience as a supposed asset to another place. In all these cases the personal point of view shortens the time of employment. For the short term of service of the large remainder, the order system, with its varying demands as to numbers, is responsible.

Class 4, the "extra force," varies, according to locality, from over one-fifth to nearly two-fifths of the total number. Their period of employment varies from three to eight months and covers one or both of the two yearly periods of active production. These "extra" workers are often found in the factory from December or January through March, when many drop out for a few weeks, to come on again in August for the second busy period. In Lynn one-half of the "extra force," in Brockton, one-third, and in Marlboro, nearly the same proportion, work less than six months in the year.

For the "high season" workers in class 3 the proportion again is similar for the three centers, Marlboro taking the lead. The women in this class are largely skilled workers; in contrast to the class below, their relative numbers increase with the number of weeks, and more are employed over 40 weeks than under. In dull times, during stock-taking week or between orders, these valuable workers are often dismissed by relays, one stitching or packing room at a time, so that they may not drop connection with the factory.

There remains the group of "steady workers" made up of classes 1 and 2. In Marlboro these together make nearly 50 per cent of all the women workers; in Brockton, 40 per cent; and in Lynn, 27 per cent. The earnings of these two classes, and of these alone, may be taken to represent the actual annual income for women as shoe workers, for the other classes may, and sometimes do, work in other factories or at secondary occupations to fill up the idle weeks. Their supplementary earnings, whatever their source, can not be included in the income derived from shoemaking. A number of the young women, for instance, take a summer vacation as waitresses in seashore or mountain hotels.

In conclusion, the degree of instability characteristic of the shoe workers does not seem in any noticeable measure affected by labor organization, by the nature of the product, or by the proportion of either sex among the wage earners. It is influenced to a certain extent by the size of a factory, by the economic status and the character of its workers, and by the local habits of a community. Strongest of all influences is undoubtedly the system of manufacture.

A fair presentation, then, of what women workers in the shoe industry may earn will include only the annual earnings of the "steady workers." The proportion of such workers in different factories grouped by special localities is given in Table 29.

TABLE 29.—PROPORTION OF ADULT WOMEN WORKING 46 WEEKS OR MORE IN THE YEAR IN 12 MASSACHUSETTS SHOE FACTORIES, AND THE CHIEF PRODUCT IN EACH FACTORY, CLASSIFIED BY LOCALITY.

Locality.	Chief product.	Total number of women employed in each factory.	Women working 46 weeks or more during the year at each factory.	
			Number.	Per cent.
Brockton:				
Factory A	Men's shoes	299	87	29.1
Factory B	....do	292	151	51.7
Factory C	....do	265	100	37.7
Total		856	338	
Lynn:				
Factory A	Women's shoes	722	240	83.2
Factory B	....do	69	16	23.2
Factory C	....do	637	131	20.6
Factory D	....do	301	92	30.6
Total		1,729	479	
Beverly: Factory A	Men's and women's shoes	73	43	58.9
Marlboro:				
Factory A	Men's shoes	430	193	44.9
Factory B	Men's, women's, and children's shoes.	109	93	85.3
Total		539	286	
Chelsea: Factory A	Men's, women's, and children's shoes.	710	162	22.8
Boston: Factory A	Misses', children's, and infants' shoes.	130	5	3.8
Grand total		4,037	1,313	31.7
SUMMARY OF TABLE FOR THREE IMPORTANT CENTERS.				
Lynn		1,729	479	27.7
Brockton		856	338	39.4
Marlboro		539	286	53.1

The percentages of steady workers in the four Lynn factories studied are at once lower and more uniform than those of the other localities for which more than one factory is included in the table. In Lynn the average is about 28 per cent, and the highest percentage shown is 33.2 per cent. In Brockton the average is 39.4 per cent, in Marlboro 53.1 per cent, and the highest percentages found are, respectively, 51.7 per cent and 85.3 per cent. The prevalence of the order system in Lynn must be emphasized as a chief reason for its showing in this respect. Of the 30 factories visited in Lynn, two-thirds use the order system, one-third both stock and order, though largely the former. Factory A, for instance, in the Lynn group shown in Table 29, maintains its own retail stores in many cities, and is therefore safe in making, as it does, a large quantity of stock product. Its per cent of steady workers is the highest for Lynn. Factories B, C, and D produce on the order system entirely.

The records for 24 Brockton concerns visited show 70 per cent using the order system. Factory A in Table 29 uses the order system altogether, the others both order and stock. Notwithstanding the fact that the management and conditions of Factory A in the Brockton group make work within its walls eagerly sought, its per cent of steady workers is lower than the average for Brockton. The product of Factory B in the Brockton group is made largely by the order system, 25 per cent only by stock. The majority of firms, however, using both systems divide the product fairly between the two, as is the case in Factory C. The two factories given for Marlboro together control nine-tenths of the industry of that town, where at present there are only two or three other small concerns. Factory A makes a cheap stock shoe in constant demand by workingmen, and sells by the job system to wholesale dealers. Factory B makes a better grade of shoe for men and women on the order system. Of the factories in Beverly, Chelsea, and Boston, the first works on the stock system and produces a cheap grade of shoe, the second by the order system altogether, as does also the Boston factory. Extreme instability in the working force was found in this Boston factory. A special product made by the order system must be held largely responsible for this.

Several facts of the first importance to women shoe workers are learned from Table 29. First, the average of steady workers for the 12 factories is about 32 per cent. While two or three towns where high fluctuation occurs, as Haverhill, Newburyport, and Worcester, are not here represented, their weight is balanced by a number of interior small towns producing goods on the stock basis and showing little variation in the numbers employed. On the whole, it is believed this proportion represents average conditions for the State. The total number of women working in Massachusetts shoe factories[1] (not including cut stock and shoe findings factories) in 1911 was 27,593. According to the findings of this study, about one-third, or 9,197, of these work 46 weeks or more in the year. Minors, forming less than one-half of 1 per cent of these steady workers, may be excluded from this discussion. As our records for those working 46 weeks or more include 1,300 adult women, we are in a position to quote earnings for a trifle over 14 per cent of the total number. Two-thirds of these 1,300 women work in Lynn and Brockton, where the highest wages in the State in this industry are paid. The figures for earnings, then, make a favorable, though not an exaggerated, showing in comparison with the average for the State.

---

[1] Massachusetts Bureau of Statistics, Twenty-sixth Annual Report on the Statistics of Manufactures, 1911, p. 2.

ANNUAL EARNINGS OF STEADY WORKERS.

It has been shown that the factories chosen for special study show so great a variety in management, product, and numbers as to make statistics drawn from their pay rolls a fair and reliable representation of women's earnings. The classified earnings presented in Table 30 may then be taken as a basis for discussion.

TABLE 30.—ANNUAL EARNINGS OF ADULT WOMEN WORKING 46 WEEKS OR MORE IN THE YEAR 1910-11, CLASSIFIED ACCORDING TO KIND OF WORK.

[Based on pay rolls of 12 factories.]

Earnings.	Workers receiving classified earnings.					
	Machine operators.		Handworkers.		Total number.	Per cent.
	Number.	Per cent.	Number.	Per cent.		
Classified annual earnings.						
$150 and under $200	5	0.6	6	1.4	11	0.8
$200 and under $250	16	1.8	12	2.9	28	2.1
$250 and under $300	42	4.7	31	7.4	73	5.6
$300 and under $350	66	7.4	46	10.9	112	8.5
$350 and under $400	96	10.8	76	18.1	172	13.1
$400 and under $450	141	15.8	70	16.6	211	16.1
$450 and under $500	127	14.2	66	15.6	193	14.7
$500 and under $550	117	13.1	36	8.5	153	11.6
$550 and under $600	107	12.0	28	6.7	135	10.3
$600 and under $650	60	6.7	21	5.0	81	6.2
$650 and under $700	37	4.1	9	2.1	46	3.5
$700 and under $750	23	2.6	11	2.6	34	2.6
$750 and under $800	23	2.6	5	1.2	28	2.1
$800 and under $850	14	1.6	2	.5	16	1.2
$850 and under $900	12	1.3	2	.5	14	1.1
$900 and under $950	5	.6			5	.4
$950 and under $1,000						
$1,000 and over	1	.1			1	.1
Total	892	100.0	421	100.0	1,313	100.0
Cumulative annual earnings for all workers.						
1. Under $500					800	60.9
$300 or under					112	8.5
$400 or under					396	30.2
$450 or under					607	46.2
2. $500 and over					513	39.1
$550 and over					360	27.4
$600 and over					225	17.1
$700 and over					98	7.5
$800 and over					36	2.7
Total					1,313	100.0

Table 30 shows that 576, or 44 per cent, of the women earn $350 to $499 per annum. The earnings of this predominant midway group, if distributed throughout a year of 50 weeks, would make an average wage of $7 to $10 per week. It will here occur to the reader that among those whose earnings are lower than this there must be a large number of women who work only 46 or 47 weeks in the year. This is so far from the case that the number working 50 to 52 weeks in the year forms by far the largest per cent, as shown by the following table:

TABLE 31.—ADULT WOMEN WORKING 46 WEEKS OR MORE IN THE YEAR DISTRIBUTED AS TO LOCALITY AND NUMBER OF WEEKS WORKED.

[Based on pay rolls.]

Number of weeks worked.	Women working specified number of weeks.							
	Brockton.		Lynn.		Marlboro.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
52			9	1.9	161	60.7	170	15.7
51	90	26.6	250	52.3	34	12.9	374	34.6
50	42	12.4	91	19.1	27	10.2	160	14.8
49	94	27.8	55	11.5	10	3.8	159	14.7
48	56	16.6	37	7.7	13	4.9	106	9.8
47	34	10.1	21	4.4	12	4.5	67	6.2
46	22	6.5	15	3.1	8	3.0	45	4.2
Total	338	100.0	478	100.0	265	100.0	1,081	100.0
SUMMARY.								
46 and under 50	206	60.9	128	26.8	43	16.2	377	34.9
50 and over	132	39.1	350	73.2	222	83.8	704	65.1
Total	338	100.0	478	100.0	265	100.0	1,081	100.0

Of the 65 per cent working 50 weeks or over a large number are the all-the-year-round workers in Marlboro. Excluding these there still remains a group of nearly 50 per cent who work 50 or 51 weeks in the year, a group scattered throughout all the centers studied, with local differences as to proportion. In Brockton no factory runs 52 weeks in the year, but its group of women working 50 weeks or over make up about 40 per cent of the steady workers: those working 48 or 49 weeks, 44 per cent. In Lynn the number working 50 weeks or more make 73 per cent, while in Marlboro the per cent rises above 80. In some of the scattered factories which can not be placed in a unified group the proportion working 50 weeks or more is very high, as in Chelsea, where in one large factory nearly 80 per cent of the steady workers work 50 weeks or more in the year.

It is apparent, then, that the small amount of the annual income can seldom be laid to loss occasioned by two to five weeks' absence from the factory during the time it is in operation. The average wage of the predominant group among the steady workers, namely, $7 to $10 for each of 50 weeks, as deduced from Table 30, should be compared with that of the predominant groups in Table 15, showing the average wage for all adult women in the week of maximum employment, where all five classes of workers are included. Here we find that 43 per cent of those working in the maximum week earned $10 or over, while 26 per cent earned $12 or over. This wage, if multiplied by the 50 weeks worked by the majority of steady workers, gives $500 to $600 or over per annum, as opposed to the $350 to $500 actually earned by the predominant group, according to the pay rolls. The lack of correspondence between wage and annual income becomes still more apparent when it is considered that the wage for "steady workers" in the week of maximum employment runs much above the average. In full weeks many of the "steadies" earn from $12 to $15, while a higher wage is by no means uncommon, yet the annual earnings of $600 to $750, which such weekly wages would imply, are gained by only a small proportion of these workers. There is a grave discrepancy here between potential and actual earnings.

This puzzling fact is explained by examination of certain factory pay rolls. In a few cases a record is kept not only of the number of weeks each earner worked, but also of her number of days or even half days in each week. In the case of time workers the management needs such a record to determine the wages each week; in the case of pieceworkers it is a device to increase the regularity both of work and workers. As a result of study of such records and of interviews with managers and workers alike it is found that even among steady workers there is a large amount of what may be called factory unemployment. Though a woman work every day of every week, she will not work full time each week nor earn her full potential income. On some days there will be no work at all, on others work for a morning only, and on still others so great an irregularity that during no part of the day is the worker fully busy or fully free. The employees may be personally responsible for a full week lost, but they are rarely so for the part weeks or part days of idleness. Under time and piece payment alike wages are cut down by a condition characteristic of a well-managed factory as well as of one poorly run.

Some typical examples of the time lost through want of continuous work are given in Tables 32 and 33. Table 32 relates to handworkers paid on a time basis in a factory running 51 weeks in the year. As a class these workers are economically more dependent than women in the stitching room who work at higher rates and may voluntarily leave off work at times.

TABLE 32.—UNEMPLOYMENT BY NUMBER OF WEEKS, DAYS, AND PART DAYS LOST FOR 23 TIME WORKERS IN LYNN.

[Based on pay roll.]

Occupation.	Nominal weekly wage.	Number of weeks worked.			Number of days lost.	
		Total.	Full.	Part.	Whole.	Part.
Packers:						
A	$10.50	51	22	29	23	24
B	10.50	51	36	15	8	9
C	10.50	51	27	24	17	22
D	10.50	50	25	25	13	26
E	10.50	50	29	21	20	20
F	10.50	50	22	28	12	32
G	10.50	49	27	22	14	19
H	10.50	48	27	21	15	20
I	10.50	47	23	24	12	23
Tack feelers:						
A	7.50	51	13	38	33	39
B	7.50	51	11	40	29	45
C	7.50	51	13	38	27	46
D	7.50	51	5	46	30	54
Blackers:						
A	10.50	51	24	27	13	35
B	10.50	51	21	30	13	44
C	10.50	48	20	28	20	35
Patent-leather repairers:						
A	10.50	51	9	42	30	33
B	9.00	51	22	29	16	26
C	10.50	51	31	20	13	16
D	10.50	51	37	24	15	10
E	9.00	50	19	31	16	28
F	10.50	50	28	22	30	18
G	9.00	47	23	24	49	16

The packers have a nominal wage of $10.50 a week, or $1.75 a day. For those working 50 weeks, the great majority, this should amount to $525 for the year. Packer E, however, has lost 20 full days and 20 half days, making 30 full days or 5 weeks in the year. Fifty-two dollars and fifty cents must then be deducted from her nominal annual earnings of $525. Packer I, whose 47 weeks of work should yield $493.50 for the year, has lost about 24 days, and must deduct $42 from her annual earnings, leaving $451.50 per year, or $9.60 per week. The tack feelers, who earn less, are in a worse case. They work every possible week, but seldom a full week. Tack feeler D, whose nominal wage is $7.50, has worked but 5 full weeks and has lost 57 days, the earnings for which must be deducted from her nominal annual earnings of about $382. Some of these days are public holidays. Were she a janitress, a waitress, or a bookkeeper, holidays would mean no loss of wage. Her actual loss, however, is about $71, leaving her $311 for the year, or $6.09 for each of her 51 weeks of work.

The same uncertainty as to the difference between actual and potential earnings prevails among the higher classes of workers in the stitching rooms. Table 33 shows unemployment for certain skilled machine operators in a large, well-organized factory drawing help from a stable population. The six months selected are those in which work was most active. The days lost in no instance occurred at the beginning or end of a term of service.

TABLE 33.—UNEMPLOYMENT BY NUMBER OF DAYS AND PART DAYS LOST FOR SKILLED MACHINE OPERATORS WORKING 6 CONSECUTIVE MONTHS OR 26 WEEKS IN THE MOST ACTIVE SEASON IN 1911.

[Based on pay roll.]

Occupation.	Number of weeks worked.			Number of days lost.	
	Total.	Full.	Part.	Whole days.	Half days.
Vampers:					
A	26	20	6	3	4
B	26	18	8	4	5
C	26	18	8	4	5
D	26	18	8	4	5
E	26	17	9	5	5
F	26	17	9	5	5
G	26	16	10	5	6
H	26	16	10	5	6
I	26	16	10	5	6
J	26	9	17	8	10
Top stitchers:					
A	26	21	5	2	4
B	26	21	5	2	4
C	26	20	6	3	4
D	26	19	7	4	4
E	26	19	7	4	4
F	26	17	9	5	5
G	26	12	14	7	5

Skilled stitchers not infrequently earn $18 to $20 in full weeks or $3 and over a day. The losses from this potential wage, due to factory unemployment, are serious enough even in the busiest season; in the slack season they mean in many cases serious deprivation.

The high-water mark of earnings is probably reached by the Brockton stitchers grouped in Table 34. They are under favorable circumstances as to factory management, labor organization, and rates of pay; yet when their annual earnings are distributed throughout the year it is found that a surprisingly large proportion earn less than the $9 a week which has been estimated as essential to a working woman's maintenance in Massachusetts.

TABLE 34. CLASSIFIED EARNINGS FOR STITCHERS WORKING 46 WEEKS OR MORE IN THE YEAR IN BROCKTON.

[Based on pay roll.]

Annual earnings.	Average weekly wage for 52 weeks.	Number earning specified amount.		Per cent.	
1. Under $500:	Under $9.60:				
$350 or under	$6.50 or under		2		4.3
$400 or under	$7.50 or under		4		8.6
$450 or under	$8.50 or under		13		28.3
$500 or under	$9.60 or under	19		41.3	
2. $500 and over:	$9.60 and over:				
$500 and over	$9.60 and over	27		58.7	
$550 and over	$10.50 and over		18		39.1
$600 and over	$11.50 and over		11		23.9
$650 and over	$12.50 and over		2		4.3
Total		46		100.0	

The earnings of this group are not reached by the ordinary skilled worker. The pay rolls show that the women's annual earnings mean less than $9 a week for 40 per cent of the "steadies" in Brockton, for 62 per cent in Lynn, and for 75 per cent in Marlboro.

That the hours and days of unemployment are seldom due to voluntary absence is shown by comparing the pay-roll cards for a group of workers in the same factory. The shortage usually occurs either for the whole group or for so large a part of it as to make it evident that the cause was lack of work. Each pieceworker learns pretty accurately the number of pieces she can handle at a comfortable speed, but she does not know how many pieces she will be assigned on a given day, while she is equally uncertain as to the number of days or the number of weeks she will have normal work. It must be kept in mind that this is a fact in connection with steady workers, who can not supplement their earnings, yet who are as a class economically dependent upon them.

In summing up the results of this study of annual earnings, three points stand out prominently: The fluctuations in the industry, which debar many of the workers from steady employment; factory unemployment, or temporary lack of work for those who nominally are steadily employed; and, partly as a consequence of these periods of involuntary idleness, the low weekly wage, when earnings are distributed over the year, even of steady and experienced workers. The 1,313 women whose annual earnings are shown in Table 30 were adult, experienced, and steady workers, yet three-fifths of them earned less than $500 a year and not far from half (46.2 per cent) earned only $450 or less, and $450 a year means less than $9 a week. And what of the 2,963, or more than two-thirds of the women, employed in shoemaking who are not steady workers? Such are the significant findings of this investigation as to women's earnings. That these earnings exceed on the whole those of any other large body of factory workers is unquestioned. It is no less a fact that not even in the least expensive locality can they support a majority of the steady workers properly and healthfully.

CHAPTER VI.—SPECIAL CONDITIONS AFFECTING THE EARNINGS AND EFFICIENCY OF WOMEN WORKERS IN SHOE FACTORIES.

Among the matters that make up the complex whole of an industrial life are many arising from social and economic tendencies always unfixed and obscure. These must be left untouched in this incomplete study, nor, in fact, can any impartial investigator fail to admit that there is much underlying any industrial fact that no inquirer from the outside can hope to capture and analyze. Yet certain factors are too obviously related to women's status as wage earners to be ignored, although the data in connection with them are limited. These are the questions of sex, nationality, schooling, the employment of minors, and the organization of labor. The present study has realized the import of these factors, though unable to measure and weigh them except in a limited degree.

SEX AS AFFECTING EARNINGS.

The question of equal rewards for equal work for men and women has already been settled in the shoe factories by the method of piece payment. Where men and women are doing the same work they are paid at the same rate. But it is only in exceptional cases that they are doing the same work. It has been clearly pointed out by social economists that men and women, even when working under the same factory roof, are usually not competitors in a true sense. Women get lower pay than men for various reasons, but mainly because they are doing work of a lower grade. In the shoe industry the general rule is carried out, but it has conspicuous exceptions. Women's work is mainly in the stitching and packing room. It requires as much manual dexterity as that of the men, but less physical strength, and on the whole less mental ability. Therefore the whole scale of wages for women is lower than that for men. This is clearly shown in the following table:

TABLE 35.—NUMBER AND PER CENT OF MALE AND FEMALE BOOT AND SHOE WORKERS, AGED 18 OR OVER, EARNING CLASSIFIED AMOUNTS IN WEEK ENDING DECEMBER 16, 1911.

[Source: Massachusetts Bureau of Statistics, Twenty-sixth Annual Report on the Statistics of Manufactures, 1911, p. 93.]

Classified weekly earnings.	Males.		Females.	
	Number.	Per cent.	Number.	Per cent.
Under $10	10,326	19.5	14,277	53.1
$10 but under $12	6,305	11.9	5,159	19.2
$12 but under $15	10,853	20.5	4,645	17.3
$15 but under $20	15,248	28.8	2,386	8.9
$20 but under $25	6,821	12.9	370	1.4
$25 and over	3,427	6.5	38	.1
Total	52,980	100.0	26,875	100.0

More than half the women earned under $10; very nearly half the men (48.1 per cent) earned over $15. The largest single group of women in the detailed table from which the above is condensed consists of those earning $10 but under $12; the largest single group of men consists of those earning $15 but under $20. Relatively this single group of men is larger than the combined groups of women earning $12 or over.

It has been seen in Chapter III that the division of the work between the sexes is in some processes a matter of habit and tradition, now beginning to be disregarded locally. The difficulty of obtaining enough women for the stitching room, together with the recent availability of foreign male help eager to do work that requires little physical activity, is gradually putting men at the sewing machines. This movement has made less headway in Massachusetts than in other States. In New York and Brooklyn large numbers of foreign-born Jews go into the clothing factories to learn machine stitching and then, as experienced stitchers, readily find places in shoe shops. American-born or Americanized men dislike working in the "women's rooms," while the American women as much dislike working in the men's rooms. Where both sexes are doing the actual processes in the same rooms one sex is generally of alien origin. In Massachusetts factories men in the stitching room are usually Jews, Greeks, Italians, or Armenians, all slender and agile races. The managers do not always introduce them willingly, but once they are in, defend their presence with much warmth. Men, they claim, can be placed closer together with less inconvenience, will do more work in a given time, and may be legally worked more than 54 hours a week at rush periods. These undoubted advantages will naturally give most of the better-paid places to men. Whatever the degree of skill and speed a woman in shoe factories may gain, she can not hope for earnings that measure up to those of the men workers of the same caliber.

The character of a local population, such as that of Chelsea, made up largely of foreign families, almost forces the employment of men stitchers. The more mature Jewish and Italian women are, as a rule, incompetent for stitching-room work, even if willing.

TABLE 36.—WAGES OF 82 MEN IN A STITCHING ROOM FOR WEEK OF MAXIMUM EMPLOYMENT.

[Based on pay roll.]

Number and per cent of workers.	Workers earning specified wage.								Total number of workers.
	Under $6	Under $8	Under $9	Under $10	Over $10	Over $12	Over $15	Over $20	
Number	1	5	10	10	72	58	30	7	82
Per cent	1.2	6.1	12.2	12.2	87.8	70.7	36.6	8.5	....

The factory from which these data were taken has no labor union and pays comparatively low rates. The weekly wage for women is among the lowest noted. The proportion of men, however, earning $10 and over in the maximum week is almost half as large again as that of any group of women wage earners in the districts studied.

A comparison of average wages for groups of skilled machine operators of both sexes in this factory is given in Table 37.

TABLE 37.—COMPARATIVE WAGES FOR MEN AND WOMEN WORKING 45 WEEKS AND UNDER ON PIECEWORK IN A STITCHING ROOM IN CHELSEA.

[Based on pay roll.]

Occupation.	Number.		Average weekly wage.	
	Men.	Women.	Men.	Women.
Backstayers	9	8	$8.64	$8.12
Foxing stitchers	37	12	10.17	6.16
Top stitchers	6	5	9.38	8.61
Vampers	20	61	10.87	9.02

NATIONALITY AS RELATED TO INDUSTRIAL SUCCESS.

At first view it appears that nationality has a direct relationship to the amount of earnings, since the more highly paid processes are so largely done by native women. This relationship is only apparent. It is not a racial want of ability that keeps foreign women out. In the first place they are relatively few in number in Massachusetts shoemaking towns. Again, some factory managers claim the foreign woman immigrant can not understand or read the directions given to the stitchers. Others, but these are in low-grade factories, claim that reading directions is not a necessity. In some cases where foreign women have had school or industrial training they have proved skillful shoe workers. In Lynn a number of Italian women that among those whose earnings are lower than this there must be a large number of women who work only 46 or 47 weeks in the year. This is so far from the case that the number working 50 to 52 weeks in the year forms by far the largest per cent, as shown by the following table:

TABLE 31.—ADULT WOMEN WORKING 46 WEEKS OR MORE IN THE YEAR DISTRIBUTED AS TO LOCALITY AND NUMBER OF WEEKS WORKED.

[Based on pay rolls.]

Number of weeks worked.	Women working specified number of weeks.							
	Brockton.		Lynn.		Marlboro.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
52			9	1.9	161	60.7	170	15.7
51	90	26.6	250	52.3	34	12.9	374	34.6
50	42	12.4	91	19.1	27	10.2	160	14.8
49	94	27.8	55	11.5	10	3.8	159	14.7
48	56	16.6	37	7.7	13	4.9	106	9.8
47	34	10.1	21	4.4	12	4.5	67	6.2
46	22	6.5	15	3.1	8	3.0	45	4.2
Total	338	100.0	478	100.0	265	100.0	1,081	100.0
SUMMARY.								
46 and under 50	206	60.9	128	26.8	43	16.2	377	34.9
50 and over	132	39.1	350	73.2	222	83.8	704	65.1
Total	338	100.0	478	100.0	265	100.0	1,081	100.0

Of the 65 per cent working 50 weeks or over a large number are the all-the-year-round workers in Marlboro. Excluding these there still remains a group of nearly 50 per cent who work 50 or 51 weeks in the year, a group scattered throughout all the centers studied, with local differences as to proportion. In Brockton no factory runs 52 weeks in the year, but its group of women working 50 weeks or over make up about 40 per cent of the steady workers: those working 48 or 49 weeks, 44 per cent. In Lynn the number working 50 weeks or more make 73 per cent, while in Marlboro the per cent rises above 80. In some of the scattered factories which can not be placed in a unified group the proportion working 50 weeks or more is very high, as in Chelsea, where in one large factory nearly 80 per cent of the steady workers work 50 weeks or more in the year.

It is apparent, then, that the small amount of the annual income can seldom be laid to loss occasioned by two to five weeks' absence from the factory during the time it is in operation. The average wage of the predominant group among the steady workers, namely, $7 to $10 for each of 50 weeks, as deduced from Table 30, should be compared with that of the predominant groups in Table 15, showing the average wage for all adult women in the week of maximum employment, where all five classes of workers are included. Here we find that 43 per cent of those working in the maximum week earned $10 or over, while 26 per cent earned $12 or over. This wage, if multiplied by the 50 weeks worked by the majority of steady workers, gives $500 to $600 or over per annum, as opposed to the $350 to $500 actually earned by the predominant group, according to the pay rolls. The lack of correspondence between wage and annual income becomes still more apparent when it is considered that the wage for "steady workers" in the week of maximum employment runs much above the average. In full weeks many of the "steadies" earn from $12 to $15, while a higher wage is by no means uncommon, yet the annual earnings of $600 to $750, which such weekly wages would imply, are gained by only a small proportion of these workers. There is a grave discrepancy here between potential and actual earnings.

This puzzling fact is explained by examination of certain factory pay rolls. In a few cases a record is kept not only of the number of weeks each earner worked, but also of her number of days or even half days in each week. In the case of time workers the management needs such a record to determine the wages each week; in the case of pieceworkers it is a device to increase the regularity both of work and workers. As a result of study of such records and of interviews with managers and workers alike it is found that even among steady workers there is a large amount of what may be called factory unemployment. Though a woman work every day of every week, she will not work full time each week nor earn her full potential income. On some days there will be no work at all, on others work for a morning only, and on still others so great an irregularity that during no part of the day is the worker fully busy or fully free. The employees may be personally responsible for a full week lost, but they are rarely so for the part weeks or part days of idleness. Under time and piece payment alike wages are cut down by a condition characteristic of a well-managed factory as well as of one poorly run.

Some typical examples of the time lost through want of continuous work are given in Tables 32 and 33. Table 32 relates to handworkers paid on a time basis in a factory running 51 weeks in the year. As a class these workers are economically more dependent than women in the stitching room who work at higher rates and may voluntarily leave off work at times.

vancement. This seems too optimistic a statement, certainly so far as boys are concerned. According to the union officials there is now a surplus of skilled men workers, and admission to their ranks is jealously guarded. Moreover, in the rush season, foremen and forewomen dislike to be bothered with awkward workers, while in a dull season the experienced hands can scarcely be kept busy, so that the would-be learner has little chance at either season. A minor determined to remain in the shoe industry is peculiarly dependent on persistent effort for advancement.

RELATION OF WOMEN TO LABOR UNIONS.

Labor organization among shoe workers in Massachusetts, though even now far from complete, is a time-honored movement. Its history belongs to other branches of social study; we are concerned with its movements only in the direction in which they affect the status of women. The four localities chosen for study differ widely in respect to unionized labor. Brockton and Lynn, though very different in their methods of organization, are strictly union centers; Boston and its outlying suburbs are unorganized, but do not refuse members of unions; Marlboro will employ no union labor whatever.

Lynn and Brockton union officials, on whatever points they disagree, unite in lamenting the difficulty of holding women to a realization of the importance of organization for their own protection and the general good of the workers. The younger or low-paid workers especially grudge the weekly dues, while the mature steady women resent the expenditure of union money for the occasional association recreation. Few women comprehend the value of unions in standardizing wage or seek to utilize them in securing physical or moral sanitation in the shops. A reason frequently assigned by men for the indifference of women to the unions is that they do not look upon shoemaking as a life work. A more reluctantly stated cause is the social degradation assumed to follow membership in a union. This reason is strong in Brockton, possibly because women workers there are as a class socially superior to the men. The entrance of foreign men, mainly Jews, into the stitching rooms, and their compulsory membership in stitchers' unions has increased this feeling which prevails especially among Americans.

UNIONS IN BROCKTON AND ITS VICINITY.

In the southeastern towns of Massachusetts nearly all the shoe workers are members of the Boot and Shoe Workers' Union, an association affiliated with the American Federation of Labor. In no factory in Brockton and in few situated in surrounding towns can a nonunion man be employed. The various classes of operators are further organized into groups, as the Lasters' Union, the Vampers', the Cutters' Union, etc. All of these have delegates to the joint council of the Boot and Shoe Workers' Union, which has a contractual relation with the manufacturers maintained in most instances for the past 10 or 15 years. The unions guarantee that there will be no strikes, the manufacturers, that they will maintain a price list fixed after joint conference. In Brockton the higher wage, good factory equipment, and permanence of business concerns are no doubt largely due to the intelligent and moderate management of the unions. The fact that the unions have to deal with a superior class of manufacturers, who reside among and respect their working force, must be given a large place in the accomplishment of these results. One or two factories have stood conspicuously apart in their refusal to employ union labor. The old town of Bridgewater had one of these—now discontinued; in it 90 per cent of the working force was foreign born. As the managers made a point of teaching processes, many workers went there for a time to learn, but left as soon as the processes were acquired to find work under better conditions.

Women are less completely organized than men, though in Brockton the Stitchers' Union No. 154 numbers 2,700 women. Some women belong to the Dressers' and Packers' Union and others to the Vampers' or Skivers' Unions. Altogether about four-fifths of the women in the Brockton district belong to unions. Dues for all members are 25 cents a week. Those who have been members for 6 months are entitled to a sick benefit of $5 a week for 13 weeks, and for members in good standing for 2 years there is a death benefit of $100. The officials of the chief women's unions complain of the lack of interest on the part of their membership and the difficulty of securing quorums for the fortnightly business meetings. The women's unions do nothing in the way of social recreation.

UNIONS IN LYNN AND ITS VICINITY.

In strong contrast to the unified labor in Brockton and its stable relation to the employers are the chaotic conditions in Lynn. The multiplication of labor organizations, their discordant views, their unconcerted action and their too frequent demands for alteration in labor conditions are assigned by many of the employers as causes of their opposition to unions. Within a dozen years several large firms have removed their plants to nonunion centers, where they rigidly maintain an open shop. Such a removal means great expense to the business, not only in the cost of a new plant, but in the loss incurred by settling amid a population untrained to shoemaking. It has been said that three generations are needed to make a shoe worker. This dictum bids fair to be disproved in its limited sense, but what may not be true of the individual may be generally true of a community.

Among the Lynn shoe workers there are 18 labor unions, 9 under the United Shoe Workers of America, 2 under the Knights of Labor 5 locals of the Boot and Shoe Workers' Union, and 4 strong ind pendent unions. The two larger unions are the United Shoe Workers of America, including about 3,500 members, and the Boot and Shoe Workers' Union, including the entire force of three factories, amounting to between 500 and 600 workers. The agent of the Boot and Shoe Workers' Union estimates that there are, in the stitching rooms at Lynn, about 3,000 women, one-third of whom belong to some union. The Boot and Shoe Workers' Union has about 150 women members. This does not include the workers who work only during the rush time; they do not have to join the union even in a closed shop, but if they remain longer they are usually approached by the agent or forewoman and asked to join. It is claimed by the agent that the women do not take very much interest in the unions. At most of the meetings there are not more than 7 to 20 women present out of 150 members.

The agent of the Boot and Shoe Workers' Union claims that four-fifths of all the men employed in the shoe factories in Lynn are organized in unions and about one-third to one-half of all the women. Over 2,000 women are members of the United Shoe Workers of America, which controls eight factories in which the whole force are members and three others in which 90 per cent, including the women, are members. In two other large factories most of the men are organized, but only a few of the women. As a reason the secretary stated that in one of these factories the conditions have always been better than the average, and therefore the workers have not banded together for protection.

The secretary of the women's branch of the Boot and Shoe Workers' Union states that this union was established in March, 1903, and includes all the women workers in three factories. She asserts that the women are interested in the union; that the Americans and Irish take the most interest, and that few of the foreign women come to the meetings. The dues are 25 cents a week, and for members in good standing there is a sick benefit of $5 a week for 13 weeks and a death benefit of $100. Workers over 60 years of age are not admitted to the union. The rush help does not have to join, nor do the forewomen. The regular business meeting is held once a month, and there are no social meetings. The women in the towns surrounding Lynn are not organized, but a number of the men belong to unions as individuals.

Local Union No. 38 of the United Shoe Workers includes buttonhole operators, finishers, eyeleters, and buttoners. The first meeting was called December, 1907. The secretary states that 24 women workers met and organized, receiving hearty support from the Lasters' Union. The union was at first independent, but it has been affiliated with the United Shoe Workers of America for the past three years. The reason for organizing was the reduction in the price paid the women working on the buttonhole machines, a change due to the displacement of the old Singer machine by the Reese buttonhole machine, now universally installed. The increase in the amount of work done per day in connection with the new machines caused manufacturers to cut prices repeatedly, until the women were forced to a protest. Under the rates now fixed by agreement with the unions, as much can be made per day as when the Singer machines were used, and often more. About 350 women and 24 men are members of this local union; only 20 workers eligible are not members. The secretary states that organization has done more for buttonhole operators than for any other class of workers in the whole shoe industry, and for this reason the union members are very enthusiastic. She asserts that the manufacturers have been square in their dealings and have cooperated with union officials in raising rates, which both sides realized were too low. So far as she knows the price list now in use on this special operation is the only graded price list of any shoe workers' union. The usual meetings of this union have from 10 to 30 members present; a meeting has never been dismissed for lack of a quorum. The United Shoe Workers pays $100 death benefit to the members of any of the local unions under its organization who have been in good standing for the year. There is, however, no sick benefit in their union, though whenever a member is sick fruit is sent every week. If a member needs financial help, a whist party or something of the kind is held to raise funds. There is a good deal of social activity in the union. About once a month they have a dance at which refreshments are served free. Members of the union and their escorts attend, and the executive members of other unions are invited. Two or three times a year the union has a public dance to which the admission charged is 25 cents. At these they frequently clear over $100.

An independent women's organization is the Buttonhole Operators' Union, formed a few years ago. Impetus to its formation was given by the fact that there are in Lynn many contract rooms in which only the buttonhole and eyeleting work is done, and their cheap contracts keep down the prices in the regular shops. The secretary stated that before the union was formed workers could not make more than $7 or $8 a week, since the prices paid were only 3 cents to 3½ cents per 100 holes. When the union was organized it raised the price to 5 cents per 100.

In Marlboro, as well as in some of the surrounding small shoe towns, the organization of labor was fairly complete before the year 1898. At that time an occasion of disagreement arose between employers and employees on a question of no very material interest, as is now conceded. The result, however, was a universal strike on the part of the local working force, finally broken by the importation of outside workers, many of whom were Greeks. The shoe factories in Marlboro have been open shops since that date. The women workers struck with the men at that time, and have always, in Marlboro, been largely dependent on the action of the masculine element in the shoe-working force. In Boston, Jamaica Plain, Chelsea, and other shoe sections near Boston there are no union shops, and little effectively organized labor. Individuals may be members of unions, but the factory owners recognize and treat with no labor organization.

Table 39, which follows, gives the condition as to the labor organization in the industry in the chief localities studied. Labor men will point to the fact that the strongly organized centers, such as Lynn and Brockton, show the highest average wage. While the two conditions have doubtless a true relation, there are other factors which enter into the making up of the annual earnings; among them are the quality of the product, the proportion of women workers, and the fact that in fixing wages in any locality the cost of living must be considered. This cost in Lynn is far higher, for instance, than in Salem or Beverly. while it is much lower in Marlboro than in any of the seaboard shoe towns. The low wages in Boston and Chelsea are partly due to the character of the product, and the standards of living among the unskilled workers largely employed in its manufacture.

TABLE 39.—AVERAGE ANNUAL EARNINGS OF ALL WORKERS IN FOUR CENTERS IN MASSACHUSETTS, AND PER CENT OF WOMEN WAGE EARNERS, CHIEF PRODUCT, AND CONDITION AS TO LABOR UNIONS, 1910.

[Source: Massachusetts Bureau of Statistics, Twenty-fifth Annual Report on the Statistics of Manufactures, 1910, pp. 13-33, 42-49.]

Locality.	Average annual earnings.	Per cent of women.[1]	Chief product.	Condition as to labor organization in the industry.
Group I:				
Brockton	$691	26.7	Men's shoes	Strong central union.
Weymouth	679	28.9	do	Do.
Rockland	668	28.1	do	Do.
Group average	687			
Group II:				
Lynn	601	41.6	Women's shoes	Many separate unions.
Danvers	527	40.7	Children's and infants' shoes	
Salem	496	38.1	Women's and children's shoes	Partly organized.
Beverly	476	38.9	Women's shoes and slippers	Several local unions.
Marblehead	451	40.0	Children's and infants' shoes	
Group average	566			
Group III:				
Boston	532	40.5	Women's and children's shoes	No organized labor.
Chelsea	497	38.1	Children's shoes	A few local unions.
Group average	521			
Group IV:				
Milford	578	32.2	Men's and boys' shoes	Recently organized.
Worcester	575	41.0	Men's and women's shoes	Practically unorganized.
Natick	518	18.1	Men's and boys' shoes	No unions.
Marlboro	514	34.1	do	Do.
Hudson	511	33.1	Men's, women's and children's shoes.	Do.
Group average	529			

[1] Computed.

CHAPTER VII.—RETROSPECT AND PROSPECT.

Among the features most prominent in connection with the class of women with which we have been dealing is their hitherto clearly defined and continuous relation to the industry. Whether this long-established connection will continue permanent is now a question. Shoes in all probability will be stitched so long as shoes are made, and women will, if they choose, be the stitchers. But will they choose? A few years ago the sewing machine was supposed no more essential in the factory than a woman to run it. But the increasing immigration to New England of Jewish men accustomed for generations to the sewing trades, and the more recent arrival of slender and light-handed races from the western edges of Asia, have brought new elements into the factory. The invasion has not been rapid, and the more skilled and remunerative processes still remain largely in the hands of American or Americanized workers. Still the employment of foreign men stitchers, who, when they displace the women, are found usurping the best paying occupations, is a menace to women's historic employment as shoe stitchers. Women of the better sort dislike the forced association with foreign men, and should the latter increase in the stitching rooms, the difficulty of inducing capable women to enter the factory will be greatly increased. As a result, manufacturers will be forced to discard them as dependable help. Some factory owners anticipate no rapid development in this direction; others look upon it as near and inevitable. Their diverse views are doubtless influenced by differing local conditions. But whether the progress of innovation be slow or rapid, it is certain that women no longer have exclusive control of an essential part of shoemaking and are, in consequence, less than formerly in a position to maintain or improve its conditions.

More important, perhaps, to those who consider the question of wages and hours the most significant in the study of an industrial class, will be the review of the facts presented with regard to the rewards of women's labor. Thirty thousand women in the month of high activity and from forty to fifty thousand during the year look to the shoe factory for a support, either partial or entire. Whatever may be the needs or motives of the temporary or occasional workers, it is a logical conclusion, confirmed in numerous individual instances by the assertions of the women themselves, that the ten to twelve thousand who work the year round do so because of pressing necessity. The facts disclosed by this investigation in regard to the annual income of this class can not fail to cause grave concern when it is considered that it represents the high-water mark of earnings for factory women. Measured by a scale of expenditure frugally correspondent to their standards, the income of those wholly dependent on the factory varies from an amount barely sufficient to one so inadequate that the earnings must be considered supplementary, not sustaining. Many of these women belong to family groups or have husbands who are also wage earners. In such instances a woman's earnings will usually cover only her share of the joint family expenditure.

Is there any prospect of a change in the present status resulting in removal of the conditions chiefly responsible for the uncertainty and inadequacy of earnings? Radical alteration of the general situation seems unlikely, but important modifications of some of its phases have been suggested as possible by representatives both of capital and labor. Among the modifications suggested is the establishment of small plants, a movement which the freedom of the shoe industry from trust combinations renders especially practicable. The small concern has not the equipment necessary to execute large orders, and as its product is largely made on the stock system there is far less fluctuation in the numbers employed. As to large factories, it is claimed that better judgment on the part of traveling salesmen who obtain the orders and more intelligent management in the workrooms might secure a less uneven distribution throughout the year of the amount of work anticipated, and thus make it possible to increase the total output. If by these and other means seasonal fluctuation were largely modified, there would be marked reduction in the total number employed in the year, while the proportion of steady workers would be somewhat increased. The great benefit to the better class would be the lessening of the variation in weekly wage due to factory unemployment and a resulting augmentation of the total earnings for the year; but even were there little or no increase for the individual worker, the removal of a pronounced difference in the amount earned in months of maximum and minimum employment would be an incalculable advantage. To discount the future is a universal human tendency, and the woman who makes $12 or $15 a week in January finds one of the problems of her life so to calculate her expenditure as to provide for the scanty earnings of May. The failure to make this adjustment is a main cause of the debt-harassed condition of many of the skilled workers.

Another result of the reduction of seasonal fluctuation would be the lessening in the number of seasonal and occasional workers. This must undoubtedly work hardship to women whose husbands' earnings fail to meet legitimate family demands, and will mean distinct deprivation to the young girls who work a few weeks or months for the clothes their fathers can not afford to buy. The men of the family, its natural breadwinners, will feel more directly the burden of its support, and the younger women, if that support is not sufficiently ample, will desert the shoe factory for employments offering a lower but more continuous wage.

Seen in the broader survey, the women of the shoe factories, wherever they are centered, show characteristics which mark no other large industrial class so distinctively. Whatever may be their status as earners or their social position in their communities, that status and position are affected by no age-long heritage of ignorance or grinding toil, by no limitations of opportunity or restrictions placed upon freedom of choice in locality or occupation. The great stream of immigration from central and southern Europe (though for years flowing inward from the port of Boston) has as yet little affected the character of the shoe-working women, and the nonnative additions to their numbers have been, on the whole, in race and tradition kindred to the New England stock. In their ability and intelligence, in their relatively high earnings, in the permanence of their relation to the communities of which they form a part, in the uniformity of their social ideals and training, the Massachusetts shoe worker is the best that the twentieth century has produced of her type.

INDEX.

Page.

- Beverly shoe factories:
  - Chief product, women employed, and proportion of adult women working 46 weeks or more, 85
  - Maximum and minimum employment, month of, and women employed in, 81
  - Women workers, instability of, 82
- Boston as a shoe center, 29, 30
- Boston shoe factories:
  - Chief product, women employed, and proportion of adult women working 46 weeks or more, 85
  - Labor unions, relation of women to, 98–102
  - Maximum and minimum employment, month of, and women employed in, 81
  - Pay-roll data, factories and workers for which secured, 12
  - Stitchers, women, nativity of, 29
  - Women workers, instability of, 82
- Brockton and Plymouth County shoe towns, 25–29
- Brockton and vicinity, labor unions in, 98, 99
- Brockton shoe factories:
  - Chief product, women employed, and proportion of adult women working 46 weeks or more, 85
  - Conjugal condition of women workers, 28
  - Hand workers and machine operators, average weekly wages of, 67
  - Labor unions, relation of women to, 98–102
  - Maximum and minimum employment, months of, and women employed, 81
  - Minors, girl, proportion of, 97
  - Nativity of women workers, 26
  - Pay-roll data, factories and workers for which secured, 12
  - Residence in town, length of, of women workers, 27
  - Stitchers working 46 weeks or more, classified earnings of, 91
  - Wages, actual weekly, of women 18 years of age and over, 64
  - Women, adult, working specified number of weeks, 88
  - Women workers, instability of, 82
- Chelsea shoe factories:
  - Chief products, women employed, and proportion of adult women working 46 weeks or more, 85
  - Hand workers and machine operators, average weekly wages of, 67
  - Maximum and minimum employment, months of, and women employed, 81
  - Stitching room, comparative wages of men and women in, 95
  - Women workers, instability of, 82
- Conjugal condition of women shoe workers, Brockton, 28
- Conjugal condition of women shoe workers, Lynn, 21
- Crippling, operation of, variation in wages, 72
- Cutting, process of, in shoemaking, 33, 34
- Division of work between men and women, shoe factories, 40, 41
- Earnings:
  - Annual, average, of all shoe workers, four centers, 102
  - Annual, classified, of adult women working 46 weeks or more, 87
  - Annual, of steady workers, 87–92
  - Annual, of women shoe workers, 75–92
  - Boot and shoe workers, weekly, by sex, 94
  - Conditions affecting, 75–87
  - Hand workers, 67, 71, 72, 87
  - Machine operators, 67–71, 73, 87
  - Manufactures, statistics of, as showing wages and earnings, 59–63
  - Minors, employment of, as related to women's earnings, 96–98
  - Sex, as affecting, 93–95
  - Stitchers, Brockton, 91
  - Variation of, causes of, 71–74
  - Women 18 years of age and over, third week of December, 1911, 62
- Earnings. (*See also* Wages.)
- Efficiency and earnings of women workers in shoe factories, special conditions affecting, 93–102
- Employment, maximum and minimum:
  - Fluctuations in numbers, shoe factories, 76
  - Massachusetts industries, 11 leading, 1911, 76
  - Months of, and women employed, shoe factories, by locality, 81
  - Stitching room, wages of 82 men in, week of maximum employment, 95
- Finishing department, shoe factories, 39, 40
- Handworkers:
  - Earnings, classified annual, 87
  - Earnings, variation of, in same factory, 71, 72
  - Wages, 65–67
- Heels and soles, making of, 36, 37
- History, early, of shoe industry, Massachusetts, 7–10
- Hours of labor, 52, 53
- Instability of wage earners, 81–87
- Labor unions, relation of women shoe workers to, 98–102
- Lasting-room processes, 37–39
- Living conditions of women shoe workers, Lynn, 22–25
- Lynn and the North Shore shoe towns, 14–25

Page.

- Lynn shoe factories:
  - Chief product, women employed, and proportion of adult women working 46 weeks or more 85
  - Handworkers, and machine operators, weekly wages of 67
  - Labor unions, relation of women to 98–102
  - Living conditions of women workers in 22–25
  - Married women in 19–22
  - Maximum and minimum employment, months of, and women employed 81
  - Minors, girl proportion of 97
  - Nativity of women wage earners in 18
  - Pay-roll data, factories and workers for which secured 12
  - Piece rates and pieces handled to make $10 per week 69
  - Residence in town, length of, of women workers 19
  - Unemployment of 23 time workers, days lost by, by occupation 90
  - Women, adult, working specified number of weeks 88
  - Women 18 years of age and over, actual weekly wages of 63
  - Women workers in 17–19
  - Women workers, instability of 82
- Machine operators:
  - Earnings, classified annual 87
  - Earnings, variations of 73
  - Unemployment, days lost by 91
  - Wages 67–71
- Manufactures, statistics of, as showing wages and earnings 59–63
- Marlboro and Middlesex County shoe towns 30, 31
- Marlboro shoe factories:
  - Chief product, women employed, and proportion of adult women working 46 weeks or more 85
  - Handworkers and machine operators, weekly wages of 67
  - Labor unions, relation of women to 98–102
  - Maximum and minimum employment, months of, and women employed 81
  - Minors, girl, proportion of 97
  - Pay-roll data, factories and workers for which secured 12
  - Women, adult, working specified number of weeks 88
  - Women 18 years of age and over, actual weekly wages of 64
  - Women workers, instability of 82
- Martial condition. (*See* Conjugal condition.)
- Massachusetts industries, chief, comparison of, as to persons employed and wages 59, 60
- Massachusetts industries, 11 leading, maximum and minimum number of wage earners 76
- Methods employed in present inquiry 5–13
- Methods of learning the shoemaking trade 42–52
- Methods of payment, classification of, and of shoe workers 64, 65
- Minors, employment of, as related to women's earnings 96–98
- Minors, girl, proportion of, in five large shoe factories 97
- Minors, men, and women employed and wages in chief industries, Massachusetts, comparison of 59, 60
- Nationality as related to industrial success 95, 96
- Nativity of women shoe stitchers, Boston 29
- Nativity of women shoe workers, Brockton 26
- Nativity of women wage earners, three factories, Lynn 18
- Occupations. (*See* Processes, in shoemaking.)
- Packing department, shoe factories 40
- Pay-roll data, factories and workers for which secured 12
- Pay rolls, wages as shown by 63, 64
- Piece prices paid on different grades of shoes, same factory 69
- Piece rates, and pieces handled to make $10 per week, Lynn 69
- Piece rates, prevailing 68
- Processes, in shoemaking:
  - List of, in which women are employed 41, 42
  - Prices paid for each of specified 68, 69
  - Technical, description of 32–42
  - Time required to learn, by women 50
  - Trade-school instruction, fees, etc 46
- Purpose and methods of present study 5–13
- Residence in town, length of, of women shoe workers 19, 27
- Sanitation and working conditions 53–57
- Seasonal fluctuation in numbers employed 75–81
- Sex, as affecting earnings 93–95
- Shoe factories, Massachusetts:
  - Chief product, women employed, and proportion working 46 weeks or more 85
  - Division of work in, between men and women 40, 41
  - Learning the trade in 47–52
  - Maximum and minimum employment, fluctuation in numbers 76
  - Processes or operations followed 32–42
  - Wage earners, employed each month, October, 1910, to September, 1911 78
  - Women in 10, 11
  - Women in, wages of 58–74
  - Women workers, earnings and efficiency of, special conditions affecting 93–102
  - Women's work in, nature and condition of 32–57
- Shoemaking industry:
  - Beginning and growth of, Massachusetts 7–10
  - Extent of 6
  - Shoe centers and the shoe workers, Massachusetts 14–31
  - Shoe towns, distribution of, Massachusetts 6, 7
  - Trade, methods of learning 42–52
  - Wage earners of each sex in 10, 11
- Soles and heels, making of 36, 37
- Steady workers, annual earnings of 87–92
- Stitchers, classified earnings of, Brockton 9
- Stitchers, men, wages of, for week of maximum employment 95
- Stitching, process of, in shoemaking 34–36
- Stitching room, comparative wages of men and women in, Chelsea shoe factories 95

Page.
Technical processes, description of........ 32-42
Trade school, learning shoemaking trade in........ 43-46
Turning, operation of, variation in wages of hand workers........ 71
Unemployment, days lost by, skilled machine operators........ 91
Unemployment, days lost by, 23 time workers, by occupation, Lynn........ 90
Wages and number of persons employed, comparison of, chief industries, Massachusetts........ 50,60
Wages of women 18 years of age and over, 11 leading industries, 1910........ 61
Wages of women shoe workers........ 58-74
  Actual weekly, week of greatest employment........ 63,64
  Hand workers........ 65-67
  Machine operators........ 67-71
  Sources of information........ 58,59
  Variations, causes of........ 71-74
  Wages, as shown by pay rolls........ 63,64
  Wages, as shown by returns of manufacturers........ 59-63
  Workers and methods of payment, classification of........ 64,65
Wages. (*See also* Earnings.)
Work in shoe factories, division of, between men and women........ 40,41
Working conditions and sanitation........ 53-57

O

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS } WHOLE NUMBER 182

WOMEN IN INDUSTRY SERIES: No. 10

UNEMPLOYMENT AMONG WOMEN IN DEPARTMENT AND OTHER RETAIL STORES OF BOSTON

JANUARY, 1916

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

REPORTS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

[The publication of the Annual and Special Reports and of the bimonthly Bulletin has been discontinued, and since July, 1912, a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively in each series and also carry a consecutive whole number, beginning with No. 101. A complete list of the Reports and Bulletins of the Bureau will be furnished on application.]

Prior to the publication of the reports of the Bureau in the present form, many reports were issued devoted wholly or in part to the subject of "Women in industry." For a full list of these the reader is referred to Bulletin No. 174, "Subject index of the publications of the Bureau of Labor Statistics up to May 1, 1915." Original reports dealing with the subject (not including the numerous digests of State and foreign reports and State and foreign labor laws) are as follows:

*Fourth Annual Report, 1888, Working women in large cities.
Eighth Annual Report, 1892, Industrial education.
Eleventh Annual Report, 1895-96, Work and wages of men, women, and children.
*Bulletin No. 15, March, 1898, Boarding homes and clubs for working women.
Seventeenth Annual Report, 1902, Trade and technical education.
*Bulletin No. 67, November, 1906, Conditions of entrance to the principal trades.
*Bulletin No. 73, November, 1907, Laws relating to employment of women and children.
*Bulletin No. 75, March, 1908, Industrial hygiene.
Twenty-Third Annual Report, 1908, Workmen's insurance and benefit funds in the United States.
*Bulletin No. 80, January, 1909, Woman and child wage earners in Great Britain.
Bulletin No. 83, July, 1909, Women's trade-union movement in Great Britain.
*Twenty-Fourth Annual Report, 1909, Workmen's insurance and compensation systems in Europe.
*Bulletin No. 91, November, 1910, Working hours of wage-earning women in selected industries in Chicago.
*Twenty-Fifth Annual Report, 1910, Industrial education.
*1910. Investigation of telephone companies. (S. Doc. No. 380, 61st Cong., 2d sess.)
*1910-1913. Report on condition of woman and child wage earners in the United States. (S. Doc. No. 645, 61st Cong., 2d sess.)
  *Vol. I. Cotton textile industry.
  *Vol. II. Men's ready-made clothing.
  *Vol. III. Glass industry.
  *Vol. IV. Silk industry.
  *Vol. V. Wage-earning women in stores and factories.
  *Vol. IX. History of women in industry in the United States.
  *Vol. X. History of women in trade unions.
  *Vol. XI. Employment of women in metal trades.
  *Vol. XII. Employment of women in laundries.
  *Vol. XIII. Infant mortality and its relation to the employment of mothers.
  *Vol. XIV. Causes of death among woman and child cotton-mill operatives.
  *Vol. XV. Relation between occupation and criminality of women.
  *Vol. XVI. Family budgets of typical cotton-mill workers.
  *Vol. XVIII. Employment of women and children in selected industries.
  *Vol. XIX. Labor laws and factory conditions.
*Bulletin No. 96, September, 1911, Working hours, earnings, and duration of employment of women workers in selected industries of Maryland and of California.
*1912. Strike of textile workers in Lawrence, Mass., in 1912. (S. Doc. No. 870, 62d Cong., 2d sess.)

A list of the series, together with the individual Bulletins in the series "Women in industry," in which the present Bulletin falls, is given below.

Wholesale Prices.
Retail Prices and Cost of Living.
Wages and Hours of Labor.
Women in Industry:

No. 1. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia. (Bul. No. 116.)
No. 2. Working hours of women in the pea canneries of Wisconsin. (Bul. No. 119.)
No. 3. Employment of women in power laundries in Milwaukee. (Bul. No. 122.)
No. 4. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. (Bul. No. 160.)
No. 5. Summary of the report on condition of woman and child wage earners in the United States. (Bul. No. 175.)
No. 6. Effect of minimum-wage determinations in Oregon. (Bul. No. 176.)
No. 7. The boot and shoe industry in Massachusetts as a vocation for women. (Bul. No. 180.)

---

* Supply exhausted.

(Continued on page 3 of cover.)

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . WHOLE NUMBER 182

WOMEN IN INDUSTRY SERIES: No. 8

UNEMPLOYMENT AMONG WOMEN IN DEPARTMENT AND OTHER RETAIL STORES OF BOSTON

JANUARY, 1916

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

CONTENTS.

Page.

Introduction and summary........ 5–10

Scope and method of investigation........ 10–12

Women having regular work only........ 12–44

  Extent of employment and unemployment........ 15–18

  Causes of unemployment........ 18–23

  Time lost while on pay roll of retail stores........ 23–26

  Earnings related to unemployment........ 26–29

  Earnings in stores........ 29–31

  Earnings in other industries........ 31, 32

  Dependency of workers on earnings........ 32–43

    Age, conjugal condition, and manner of living........ 33–35

    Unemployment related to degree of dependency........ 35–43

      Degree of dependency of families on earnings of women........ 40–43

  Importance of sickness as a cause of unemployment........ 43, 44

Women having both regular and extra work........ 45–57

  Extent of employment and unemployment........ 45–48

  Earnings as regulars and as extras and periods of employment........ 49–51

  Age, conjugal condition, and manner of living........ 52

  Unemployment related to degree of dependency........ 53–57

    Degree of dependency of families on earnings of women........ 56, 57

Women having extra work only........ 57–66

  Extent of employment and unemployment........ 59–62

  Rates of pay and earnings........ 62, 63

  Age, conjugal condition, and manner of living........ 64

  Degree of dependency and yearly earnings........ 64–66

Summary tables........ 66–70

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 182. WASHINGTON. JANUARY, 1916.

UNEMPLOYMENT AMONG WOMEN IN DEPARTMENT AND OTHER RETAIL STORES OF BOSTON, MASS.[1]

INTRODUCTION AND SUMMARY.

To what extent a given wage rate will cover the cost of healthful living can not be fully determined without information as to the amount of unemployment which must be expected in the industry to which the rate applies. Not only is it important to know how much the earnings are affected by irregular employment, but it is also desirable to know, when the wages of women are under consideration, how much unemployment is due to conditions peculiar to the normal wage-earning woman as distinguished from conditions affecting the normal wage-earning man.

Obviously the extent and causes of unemployment will vary with the character of the industry, as the ebb and flow of business in some industries is much more marked than in others. An industry in which the worker must expect to lose more or less time during the year because of "shutdowns," lay offs, and slack work presents a disturbing uncertainty to those entirely dependent upon their earnings for support. If a woman so circumstanced is earning, when working full time, only enough to meet the demands of healthful and decent living, any time lost presents to her a serious problem. She must in some way meet the cost of living for the 52 weeks in the year. Every week that does not bring its pay envelope must levy its tax upon the weeks that at best are bringing only enough for their own needs. To such a woman a weekly rate of pay of $9 in an industry whose records show an average loss of four weeks through lay off, is not as good as $8.75 in an industry where the unemployment enforced by business conditions does not amount to more than two weeks.

---

[1] The Massachusetts Minimum Wage Commission made a study in 1914 of the wages of women in mercantile establishments, but was too limited in funds to investigate the extent and causes of unemployment throughout the year and its relation to the rates of pay. As the United States Bureau of Labor Statistics and the United States Commission on Industrial Relations had agreed to share the expense of a study of the extent and causes of unemployment among women in retail stores, Boston was chosen as the field for study at the invitation of the Massachusetts Minimum Wage Commission. Through this cooperation the results of the investigation became available to the bureau, to the United States Commission on Industrial Relations as a basis for its findings, and to the Massachusetts commission to supplement its own investigation.

But there are other causes of unemployment, some of which are as completely beyond the control of the worker as are "shutdowns," lay offs, and slack work. Occasional illness falls to the lot of the average worker, entailing not only loss of employment but additional expense. That it causes more loss of employment among women than among men, both German and English figures on sickness insurance show.[1] Furthermore the German figures furnish evidence that the amount of unemployment due to sickness varies with the industry. To what extent this variation is due to the demands of the occupation is not shown except in cases where occupational diseases have been made the subject of special study. In any case, the extent to which the unemployment of wage-earning women is caused by sickness must be determined before its influence on the wage can be measured and before there can be an intelligent discussion of the question as to whether provision for such unemployment should be made in wage determinations or by some form of social insurance.

Manifestly, conclusions concerning the extent and causes of unemployment among women wage earners can be drawn only after a careful study of the conditions of employment prevailing in each industry. The expense involved made it necessary to limit this investigation to one industry in Boston.

For reasons already explained[2] department and other retail stores of Boston were chosen for the study of employment conditions prevailing among women at work. Although the extent of involuntary unemployment among these women is shown in this report to be of large importance, it should be remembered that conditions in this respect are probably better than in many other industries employing large numbers of women, because retail-store business is not sharply seasonal. Whether or not retail stores differ widely from other industries in the amount of unemployment due to causes other than fluctuating demands for labor can not be said. The relative position of the mercantile business in this respect can be determined only after a series of studies has been made.

There is considerable ebb and flow in the tide of retail-store business quite aside from the trade flood of the holiday season. People change the quantity and quality of apparel about the same time to meet the demands of the changing seasons. These natural occasions of buying activity are extended and frequently supplemented throughout the year by inducements offered in the form of "special sales" and "bargain days."

---

[1] See report of the Leipzig Sick Fund, quoted in the Twenty-fourth Annual Report United States Commissioner of Labor, pp. 1255-1347. See also report on The Working of Insurance Act (England), New Statesman, Vol. II, No. 49, special supplement, pp. 3-5.

[2] See footnote, p. 5.

Increased activity on the part of the buying public requires on the part of the store an increase of labor service. In some cases this is secured by increasing the activity of the existing labor force. Sometimes the demands are met by temporarily shifting to the departments under pressure "special employees" who are permanently engaged as a mobile force to meet these demands. Such employees are in some cities known as the contingent force. In still other cities it is the custom to employ additional help for a few weeks, or months, and to make selections from the newcomers to fill permanently the places of old employees who may have been dropped for one reason or another. The other method of meeting the demands of exceptional activity, and that which prevails in Boston, is the employment of "extras." Aside from the well-defined seasonal pressure on the labor force, the principal periods of activity are due to the special sales, which do not necessarily occur at the same time in all establishments. In addition to the demands made by these special sales, some establishments require extra help on Saturdays and Mondays. Some require help on certain evenings. This situation lends itself to the development of a reserve labor force which can be drawn on by all stores for special service, because all the establishments together appear to offer opportunity for considerable employment, though the duration of service in any one may be exceedingly limited.

It must be understood that these "extras" hold positions differing wholly from those held by the regular employees as to wages and unemployment. Each department of a store under normal conditions is supplied with a certain number of regular employees. At given seasons of the year when sales are especially heavy, extra service is engaged to meet the demand, and the woman employed for this work is not regarded and does not consider herself as a permanent member of the force. Only in case one of the regular force in the department drops out can she hope to secure foothold in the permanent service. About 90 per cent of these extras are saleswomen, counter cashiers, or bundle wrappers. As the large special sales are first in one store, then in another, and the smaller bargain sales in one department and then in another, the "extras" are drifting in and out of the stores and from one department to another in the stores.

One of the objects of this study was to discover the economic status of women and girls who supplied this large reserve of labor in the department and other retail stores of Boston, for an inspection of the records revealed the fact that "extras" available as reserve labor were nearly as numerous as the regular employees. The majority of the women personally interviewed who served only as extras in the stores during the period covered by this study were not normal wage-earning women. They were schoolgirls working Saturdays or during vacations, married women not dependent upon their earnings, or single women whose other means of income were such that they did not need or desire regular work. There were also a considerable number who were seeking to secure a foothold as regulars in the stores.

Manifestly, the normal wage-earning women are to be found principally among the regular employees and on them chiefly do the extent and causes of unemployment in the department and other retail stores have serious bearing. The year's record of unemployment calls for separate analysis in the case of the regular employees.

Pay-roll data covering the year ending July 31, 1914, were available in 15 department and other retail stores in Boston. Agents of the United States Bureau of Labor Statistics visited the homes of 1,763 of the women employed in these stores and interviewed personally the women themselves or members of their immediate families. Of this number 1,156 were regular employees. Excluding from consideration as employment or as unemployment the time before entering or after leaving industrial pursuits (amounting to an average of 2.4 weeks), the average period of possible employment during the year for the 1,156 women was found to be 49.6 weeks. The average unemployment during this period was found to be 6.4 weeks.

More than nine-tenths of these regulars had no employment outside of the stores, and the number of weeks worked by regulars in other industries constituted but 3.4 per cent of the total number of weeks of employment reported. Loss of employment in the stores by regular employees, therefore, is not offset to any significant extent by work in other industries.

Sickness leads all causes of lost time, accounting for 30.2 per cent of the unemployment and affecting 78.5 per cent of the women employed as regulars. From this time lost through illness is excluded all sick leave during which the worker received pay from the firm directly. Sickness in the family and other home demands affected over one-fifth of the women and accounted for nearly one-fifth of the total period of unemployment.

"Lay offs" are next in importance as a cause of unemployment, having been chargeable with 16.1 per cent of the lost time. The next cause in the order of importance was "inability to find work," distinguished from "lay offs," which does not in this study mean a permanent loss of position. The unemployment charged to inability to find work is that sustained after the loss of a position and while the woman is seeking another.

"Unpaid vacations," which are a puzzling cross between lay offs and voluntary vacations, were taken by many because they believed the "firm expected them to take at least a week" during the dull season, an understanding especially effective when the firm granted one or two weeks' vacation with pay. This vacation with pay is, of course, not included in the period of unemployment in this report. The vacations without pay averaged about 0.7 of one week for the entire number and less than two weeks for the 39.7 per cent who took such vacation. Whether these unpaid vacations are necessary measures of health depends to some extent upon the amount of other unemployment a girl has had and the causes of such unemployment. That some vacation in a year's work is necessary to the maintenance of health and efficiency will not be questioned. In this connection it is of interest that 55.3 per cent of the women regularly employed reported an average of a little less than two weeks' vacation with pay. If this time were distributed evenly among the entire number, the vacation would have averaged about one week.

The remainder of the time lost, amounting to 6.8 per cent of the total unemployment, was chargeable to miscellaneous causes arising primarily from personal rather than industrial conditions.[1]

Obviously all of the causes named in the foregoing paragraphs, save the miscellaneous causes and those responsible for an indeterminable share of the unpaid vacation, are more or less beyond the control of the individual. It is equally obvious that some of these causes of unemployment are peculiar to conditions surrounding wage-earning women. Sickness in the family and other home demands handicap her as a wage earner. The wage-earning woman, as well as the wage-earning man, is liable to fall ill, but whether her liability in this respect is greater than his remains to be determined. The other specified causes, too, affect men as well as women in so far as they arise from industrial rather than personal and social conditions. But all of these causes being more or less beyond the control of the emyloyee and chargeable with the largest part of the unemployment have a direct bearing upon the wage question.

Before concluding this brief summary of the extent and causes of unemployment among women in Boston department and other retail stores, it should be said that the shifting from establishment to establishment, popularly supposed to be responsible for much loss of time to women employees and equal loss of efficient service to employers, caused but an insignificant amount of unemployment among the regular employees, although anything less than a careful scrutiny of the pay rolls would convey the impression of a rapid flow of labor through all the establishments, due largely to the prevailing methods of entering individuals on the pay rolls. In some establishments the custom exists of marking a girl as "left" when she has been absent three consecutive days, even though she is expected back.

---

[1] For detailed discussion, see p. 18.

Her name is reentered on the pay roll upon her return under the same or another number. In some of the large establishments, also, a girl's name may be entered several times during the year because of shifts from department to department, although she may not have lost a day during her period of employment. In the case of extras, more deceptive than all these circumstances is the prevailing custom of entering the extra anew without regard to the number of times she has been employed in the same store. All these duplicated entries make a pay roll appear to be a very shifting affair. As a matter of fact over 90 per cent of the women interviewed who had been employed as regulars only had been employed in only one establishment during the year under investigation, and their average period of service in one establishment was 3.93 years. While this is contrary to the popular idea of the stability of female labor in mercantile establishments, it is not surprising in view of the fact that the overwhelming majority of these women were dependent primarily upon their earnings for a living [1] and in many cases contributed to the support of others. This circumstance, related to the fact that stability of labor is an important asset in the successful conduct of business, makes it clear that the interest of both employee and employer tend toward permanency of service as a guard against loss of earnings and efficiency.

This summary of the extent and causes of unemployment has been confined to the conditions surrounding women who had established themselves as regular employees of the store, because they are the normal wage-earning women and the objects of the public's concern in the effort to determine what are adequate wages. Information as to unemployment among those who served as both regulars and extras and as extras only may be obtained by reference to the detailed portion of this report giving the data relating to these classes.[2]

SCOPE AND METHOD OF INVESTIGATION.

Wage records for women and girls were available from 15 department and other retail stores in Boston, having on their pay rolls 5,985 regular employees and about 5,600 extras during the year ending July 31, 1914. These figures cover for Boston the regulars and extras tabulated by the Massachusetts Minimum Wage Commission in its report relating to wages of women in 26 retail stores in the State, and in addition include all extras appearing on the pay rolls for less than four weeks, the latter group having been omitted from the commission's report.[3] The data in these records include the name of the department and the occupation in which each woman or girl was employed, her rate of pay, actual weekly earnings, and the number of weeks she was on the pay roll, but show her record for the year in one establishment only.

---

[1] For degrees of dependency, see p. 34.

[2] See pp. 45 and 59.

[3] See Report of the Massachusetts Minimum Wage Commission on Wages of Women in Retail Stores in Massachusetts, p. 19.

No information was given in the pay-roll records as to the causes of absences from duty, to what extent the weeks missing were spent in other mercantile establishments or in other industries, or what was the economic significance of the amount of unemployment which final analysis might prove to exist. This information could be secured only through personal interviews with the women and girls, or with members of their immediate families, a method of gathering data which is of necessity slow and expensive, as it involves many return visits outside of working hours before complete data can be obtained. As the funds available would not permit of visits to all the individuals for whom pay-roll records were secured, it was found necessary to limit the investigation to about 20 per cent of the "regulars" and 10 per cent of the "extras." The names were so chosen as to secure a proportionate number from each establishment. A total of 1,763 women and girls were interviewed.

Inasmuch as this study was to be primarily one of the extent and causes of unemployment, the interviews were confined to the women whose records at the store showed absences of six days or more during the year ending July 31, 1914. For those whose records showed fewer than six days of absence during the period of possible employment, the problem created by unemployment was comparatively unimportant. Such women numbered 653, or 10.9 per cent of the 5,985 women regularly employed.[1]

The 1,763 schedules which form the basis of this report fell naturally into three main groups, as shown in Table 1, which follows. The first included 1,156 women and girls who appeared on the pay rolls only as regular employees of the store and who, when interviewed, were found to have had no extra work. The second included 346 who had employment as extras but who also had some employment during the year as "regulars," either in retail stores or in some other industry. The third group included 261 women and girls who had no employment at all during the year except as "extras."

---

[1] This is the number regularly employed according to the classification of the Massachusetts Minimum Wage Commission, but under this classification a girl working both as a regular and as an extra was classified according to the group in which she remained for the longer period. In this bulletin those having both regular and extra work are in a separate classification.

TABLE 1.—NUMBER AND PER CENT IN SPECIFIED OCCUPATIONS OF WOMEN AND GIRLS HAVING REGULAR WORK ONLY, BOTH REGULAR AND EXTRA WORK, AND EXTRA WORK ONLY.

[Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not given.]

Occupation.	Number and per cent in specified occupations of women having—								Total women and girls interviewed.	
	Regular work only.		Both regular and extra work.				Extra work only.			
			In stores.		Extra in stores, regular in other industries.					
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Saleswomen	601	52.0	112	58.0	100	65.4	207	79.3	1,020	57.9
Cashiers, examiners, bundle wrappers, and messengers	252	21.8	28	14.5	44	28.8	38	14.5	362	20.5
Office employees	167	14.4	5	2.6	2	1.3	8	3.1	182	10.3
Workroom employees	76	6.6			3	1.9			79	4.5
Stock girls	25	2.2							25	1.4
Other employees	35	3.0	48	24.9	4	2.6	8	3.1	95	5.4
Total	1,156	100.0	193	100.0	153	100.0	261	100.0	1,763	100.0

In the first group, that including women having only regular work in stores, there were 1,156 women and girls; in the second group, that which included women who worked both as regulars and as extras during some part of the year, there were 346; and in the third group there were 261 women and girls who worked only as extras during the period covered by this study. Manifestly, both the 346 and the 261 women at some time during the year bore the same relation to the stores, viz, that of reserve labor for special demands. In other words, there were in all 607 women personally interviewed who had appeared on the pay rolls as "extras" during the year ending July 31, 1914, of whom 57 per cent had also some regular work and 43 per cent had extra work only. For the sake of clearness the conditions of employment surrounding these three groups of women will be discussed separately and in the following order:

1. The women and girls employed as regulars only.
2. The women and girls reporting both regular and extra work.
3. The women and girls reporting extra work only.

WOMEN HAVING REGULAR WORK ONLY.

The pay-roll records secured by the Massachusetts Minimum Wage Commission, which form the basis of this study, showed a pay entry for each week during which a woman was at work. These entries do not necessarily mean full weeks of work, for scattered days of absence might occur in any week, but wherever a woman had any work during the week it was recorded on the wage records of the minimum wage commission as a week worked. If during any given week or weeks in the year covered by the investigation a woman had no work at all, she would naturally have no pay record for that time, and such time would be counted in the records of the commission as time not employed. This should not necessarily be construed as unemployment, for it might, as was often the case with the younger girls, be time in school previous to entering industry, or it might be time after leaving industrial pursuits to be married, or for other reasons.

As stated above, these pay-roll records furnished the wage information concerning women in individual establishments only. Some of these women may have worked in more than one retail establishment, or they may have worked in other industries. Unless they were employed for 52 weeks in one establishment the pay-roll records would not reveal the full amount of employment or unemployment during the year. The purpose of this study was to supplement the information of the original records by data showing the amount of employment in other retail stores and in other industries. Table 2, which follows, summarizes the information obtained by personally interviewing 1,156 women and girls employed as regulars in retail stores. It shows the average number of weeks in which there was some employment, grouping the employees according to whether their employment was confined to one store only or included work in other retail stores, other industries, or other retail stores and other industries both in addition to the original store in which they were employed.

TABLE 2.—AVERAGE WEEKS IN WHICH THERE WAS SOME EMPLOYMENT IN THE ORIGINAL STORE, IN OTHER RETAIL STORES, AND IN OTHER INDUSTRIES FOR 1,156 WOMEN EMPLOYED AS REGULARS ONLY.

Employment reported.	Women reporting.		Average number of weeks in which there was some employment.			
	Number.	Per cent.	In original store.	In other retail stores.	In other industries.	Total.
Stores other than 5 and 10 cent stores.						
In original store only	913	85.5	45.3	....	....	45.3
In original store and other retail stores	86	8.0	25.4	19.1	....	44.5
In original store and other industries	60	5.6	23.1	....	19.9	43.0
In original store, other retail stores, and other industries	10	.9	24.3	7.8	8.3	40.4
Total	1,069	100.0	42.3	1.6	1.1	45.0
5 and 10 cent stores.						
In original store only	53	60.9	44.5	....	....	44.5
In original store and other retail stores	12	13.8	22.3	18.3	....	40.6
In original store and other industries	17	19.5	16.4	....	28.0	44.4
In original store, other retail stores, and other industries	5	5.7	15.7	10.8	12.5	39.0
Total	87	100.0	34.3	3.1	6.2	43.6
All retail stores.						
In original store only	966	83.6	45.2	....	....	45.2
In original store and other retail stores	98	8.5	25.0	19.0	....	44.0
In original store and other industries	77	6.7	21.6	....	21.7	43.3
In original store, other retail stores, and other industries	15	1.3	21.4	8.8	9.7	39.9
Total	1,156	100.0	41.6	1.7	1.6	44.9

Of the 1,156 women and girls employed as regulars only, 1,064, or 92 per cent, reported their employment as exclusively in retail mercantile establishments during the year ending July 31, 1914; 92 women, or 8 per cent, reported some employment in other industries. The data obtained showed that this employment in other industries amounted to but 3.4 per cent of the total number of weeks of employment reported by the 1,156 women. In other words, 96.6 per cent of all the weeks in which employment was reported during the year by the 1,156 women and girls employed as regulars were weeks of employment in the stores. Manifestly, if these women were dependent upon their earnings for a living, the chief source of income for the overwhelming majority was the retail mercantile establishment.

The average number of weeks in which pay records showed some employment for the 1,156 women and girls was 41.6 in original stores and 1.7 in other stores, or a total of 43.3 weeks when retail stores only are considered. The weeks in which there was some employment in other industries averaged 1.6. Thus, the total weeks with employment averaged 44.9 for stores and other industries combined. These figures do not indicate the actual amount of employment and unemployment because they do not take account of time lost in the pay-roll weeks when the employee worked only a part of the time. The full extent of employment and of unemployment will be shown in a later section.

Table 3, which follows, analyzes in another way the weeks of employment, showing the number and per cent of women reporting specified weeks on store pay rolls, together with the number and per cent in each group who reported work in other industries.

TABLE 3.—NUMBER AND PER CENT OF WOMEN AND GIRLS REPORTING SPECIFIED NUMBER OF WEEKS WITH SOME EMPLOYMENT IN STORES, AND OF THOSE REPORTING WORK IN OTHER INDUSTRIES ALSO.

Weeks of employment in stores.	Women and girls reporting specified weeks with some employment in stores.		Women and girls reporting work in other industries also.		
	Number.	Per cent.	Number.	Per cent of number employed in stores.	Average number of weeks worked in other industries.
Under 4	1	0.1	1	100.0	43.0
4 and under 8	19	1.6	8	42.1	35.6
8 and under 12	29	2.5	13	44.8	35.0
12 and under 16	18	1.6	6	33.3	26.7
16 and under 20	33	2.9	17	51.5	21.2
20 and under 24	20	1.7	6	30.0	13.8
24 and under 28	27	2.3	9	33.3	17.0
28 and under 32	32	2.8	6	18.8	9.2
32 and under 36	42	3.6	9	21.4	13.4
36 and under 40	41	3.5	6	14.6	7.9
40 and under 44	81	7.0	4	4.9	7.7
44 and under 48	129	11.2	6	7.4	4.5
48 and under 50	142	12.3	1	.1	2.0
50 to 52	542	46.9			
Total	1,156	100.0	92	8.0	19.7

By far the largest per cent reported from 50 to 52 weeks in which there was some employment in retail stores, and those women who reported short periods of employment in retail stores very frequently had long periods in other industries. The 92 women who reported work in other industries had on the average 19.7 weeks in which there was some employment at such work.

EXTENT OF EMPLOYMENT AND UNEMPLOYMENT.

The preceding discussion gives only a bird's-eye view of the year and serves merely as a starting point for a close analysis of the extent and causes of unemployment among women regularly employed in the Boston establishments selected for study. In Table 4, which follows, is shown, by occupation groups, the amount of unemployment that occurred during the period covered. No time previous to the first employment recorded for the year and no time after a person gave up industrial pursuits is included as unemployment.

Occasionally a woman or girl just entering industry would begin work one or more days after the pay-roll week had commenced, or one leaving it would give up work before the pay-roll week had ended. Time thus lost is not counted as unemployment, but, like the full weeks before entering and after leaving industry, is classed as "not in industrial pursuits."

Unemployment as here shown means time actually lost during the period of possible employment, and is made up of time when the employee, after having once been employed, was without a job, together with periods lost while she had a job. These latter periods may have comprised scattered days only, or may have extended into weeks, but during this time the employee was in the employ of the store or other industry, her job being held pending her return. Her absence, as shown in Table 48, may have been due to any of the following causes: Unpaid vacation, sickness of worker, in school, sickness in family, home responsibilities, enforced lay off, or other personal or industrial causes.

TABLE 4.—AVERAGE WEEKS OF EMPLOYMENT AND UNEMPLOYMENT REPORTED BY WOMEN AND GIRLS EMPLOYED AS REGULARS ONLY, BY OCCUPATIONS.

[Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not given. All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment.]

Item.	Saleswomen.	Cashiers, examiners, etc.	Office employees.	Workroom employees.	Stock girls.	Others.	Total.
Number reporting	601	252	167	76	25	35	1,156
Per cent in each occupation	52.0	21.8	14.4	6.6	2.2	3.0	100.0
Weeks not in industrial pursuits:							
Before first employment	.3	6.3	1.9	.2	4.9	....	1.9
After leaving industrial pursuits	.7	.2	.1	.1	....	....	.5
Total	1.0	6.5	2.0	.3	4.9	....	2.4
Weeks of possible employment during year	51.0	45.5	50.0	51.7	47.1	52.0	49.6
Weeks in employ of—							
Stores	47.2	39.8	48.7	47.6	40.4	45.8	45.6
Other industries	1.3	2.6	.9	1.0	4.0	2.8	1.6
Total	48.5	42.4	49.6	48.6	44.4	48.6	47.2
Weeks of unemployment during period of possible employment:							
While without a job	2.5	3.0	.4	3.1	2.7	3.4	2.4
While in employ of stores	4.2	2.8	2.9	7.5	3.9	2.4	3.9
While in employ of other industries	([1])	.2	([1])	([1])	([1])	([1])	.1
Total	6.7	6.0	3.3	10.6	6.6	5.8	6.4
Per cent of unemployment in period of possible employment	13.1	13.2	6.6	20.5	14.0	11.2	12.9
Full weeks actually worked (weeks of possible employment less weeks of unemployment)	44.3	39.5	46.7	41.1	40.5	46.2	43.2

[1] Less than one-tenth of one week.

Not all the women studied worked for the whole year covered by the study, some (134) not having been employed for the first time until part of the year had elapsed, while others (22) left industrial life before the year ended. The table shows that the time thus lost averaged for the 1,156 women 2.4 weeks, classified under two heads, time before first employment (1.9 weeks), and time after leaving industrial pursuits (0.5 week). Most of the time lost before first employment was due to the girls who were in school when the year began, who did not enter stores until they had finished their course or term or reached some other natural stopping point. Some part of it, however, was due to girls who at the beginning of the year had not wished or needed to work, but who chose or found themselves obliged to become wage earners during its course. Some others were included here who had not gone to work because they were needed at home.

It was difficult in some cases to determine whether girls who stopped work before the end of the period should be classified as having definitely left industrial pursuits or should be considered in the unemployment group. In the absence of supplementary information, conclusions could be based only on the data shown for the year covered by the investigation. In case a girl gave up work to marry, and at the time of the agent's visit expressed no intention of returning to work, she was classed as having left industrial pursuits. Only 15 were in this class. In this group was placed also a girl who stopped work in January and did not return during the period; she had a comfortable home and her parents did not want her to work.

One of the most difficult cases to classify was that of a girl who worked for 12 weeks in a store, in a department located in the basement. She contracted a cough, and a physician advised her not to work in the basement. She feared tuberculosis, and gave up her job entirely. Her father and mother were employed in different cities and had broken up housekeeping, so she had no home. She made no effort to obtain other employment, but for the last 40 weeks of the period covered by the investigation visited friends in the country, going from one to another without paying any board. While it is possible that for a part of this time she was ill and unable to work, there is no information to show this, except as above, or to indicate that she could not have had employment. It did not seem fair to classify among the unemployed a person absent under such circumstances, so she was considered as having left industrial pursuits.

It appears from Table 4 that after deducting the 2.4 weeks not in industrial pursuits, the average period of possible employment for the 1,156 women and girls during the year was 49.6 weeks.

In this period of possible employment the employees had jobs in stores and other industries lasting on the average 47.2 weeks, while for 2.4 weeks they had no jobs. While they were employed in stores they lost time from various causes amounting to an average of 3.9 weeks, and while in the employ of other industries they lost 0.1 week. The whole period of unemployment thus amounted to 6.4 weeks, or 12.9 per cent of the total period of possible employment.[1]

The table shows similar data for the principal occupations. Of these, saleswomen form the largest group, comprising 601, or 52 per cent of the total; cashiers, examiners, etc., come next, numbering 252, or 21.8 per cent; and office employees are third in importance, numbering 167, or 14.4 per cent. The other occupations together constitute 11.8 per cent of the total.

A glance at the actual number of full-time weeks of work as shown in the last line of Table 4 reveals the fact that the regularity of employment varies considerably with the occupations. The average of 43.2 weeks for the entire number of 1,156 regulars is not maintained by each occupation, though in the case of some occupations the numbers represented were too small to be significant and they have been grouped under the head of "others."

---

[1] This, it should be noted, is equivalent to 6.7 weeks of unemployment in a full year of 52 weeks.

Of the three occupations having the largest numbers, the office employees report the largest number of full-time weeks of employment and the saleswomen the next largest. While the average period of possible employment for the women in the workroom was 51.7 weeks, their full-time weeks actually worked averaged but 41.1 weeks, each woman losing an average of 10.6 weeks.

While the women in the millinery workrooms are most affected by enforced unemployment, the women engaged in the alteration and other workrooms reported an impressive amount of lost time. For all workroom employees the per cent of unemployment was 20.5 as compared with 13.1 per cent for saleswomen, the largest group. The office employees show a percentage of unemployment of but 6.6. In view of the fact that they had the longest period of employment this figure indicates the steadiness of their work as compared with the other groups.

CAUSES OF UNEMPLOYMENT.

For the purpose of simplifying the treatment of the causes of unemployment during the period of employment, such causes were grouped under two general heads, viz, those arising primarily from conditions not directly associated with industry and those arising directly from industrial conditions. Of course the two often overlap and at times they are almost inextricably interlocked, but for the purposes of this study the causes have been classified in one or the other of these two general groups.

The first group of causes, i. e., those arising from other than industrial conditions, was subdivided as follows:

1. In school (individual not employed because she was still pursuing her education; under this cause were included school vacations, provided the individual was not trying to get work).[1]
2. Unpaid vacation.[2]
3. Sickness of worker. (This does not include illness causing absence from work for which no deduction from pay was made.)
4. Sickness in family of worker.
5. Home responsibilities.
6. Other personal causes. (This class includes miscellaneous causes which seemed to belong nowhere else, such as absence because of Jewish holidays, to attend a funeral or wedding, to do a little shopping, etc.)

---

[1] Nearly all of this unemployment came during the period previous to entering industry and therefore was not included in the unemployment table.

[2] For purposes of discussion this cause has been classed under the general group of causes arising from other than industrial conditions, though the cause can not be entirely disassociated from the other general group of causes, namely, those arising from industrial conditions.

The second group, i. e., causes arising from industrial conditions, consisted of unemployment due to:

1. Enforced lay off.
2. Inability to get work.
3. Changing from one job to another. (This refers to intervals between old and new jobs, generally lasting less than a week, often caused by the necessity of waiting for the new job to start.)
4. Other miscellaneous causes connected with the industrial life of the worker.

While in this classification sickness has been grouped with the causes related to personal rather than industrial life, it does not mean that the industrial life of the worker might not be at least the indirect cause of the sickness. To attempt to determine to what extent sickness is related to, or caused by, the occupation or industry was not, however, the purpose of this study, and it should be clearly understood that this report does not make any effort to relate sickness to the industry, but simply states the amount of time lost and not paid for which is chargeable to sickness of the worker.

Between the two causes described as "unpaid vacation" under the first group and "enforced lay off" in the second group there was often so little distinction that it was almost impossible to determine in which group some periods of unemployment belonged. It is the custom of many stores to give one week's vacation with pay and, according to the women interviewed, to expect the employees to take an additional week during the summer months. Almost all the employees are quite willing to take this extra week and a great many would take it even if they were not required to. Whether or not they were actually required to was difficult to determine. Some women did not want to take the extra week but did not even consider omitting it, believing that they were expected to relieve the pay roll to this extent. Whether, in case they had requested only the one week with pay, they would have been allowed to come back at the end of that time, it is impossible to say. It is probable, therefore, that some of the time classed now as "unpaid vacation" amounts practically to "lay off." Again, many departments give what they call a "winter vacation" in addition to the summer vacation. This in most cases was very clearly a lay off, but if the individual interviewed stated that she wanted the vacation and that she did not consider it a lay off, it was classed as "unpaid vacation." It may be said, therefore, that the amount of unemployment classed as lay off is certainly not an overstatement.

A scrutiny of the principal causes of unemployment reveals some impressive facts. These are brought out in Table 5, which follows, showing by occupation groups for the 1,156 regulars the per cent of unemployment due to specified causes.

TABLE 5.—PER CENT OF UNEMPLOYMENT DURING THE YEAR, DUE TO EACH SPECIFIED CAUSE, AMONG 1,156 WOMEN EMPLOYED AS REGULARS ONLY, BY OCCUPATION GROUPS.

Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not given. All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment. For an accurate understanding of the unemployment due to each specified cause this table must be considered in connection with Table 4. The data upon which this table is based are given in full in Table 48.]

Causes of unemployment.	Per cent of unemployment due to each specified cause among—						
	Saleswomen.	Cashiers, examiners, etc.	Office employees.	Workroom employees.	Stock girls.	Others.	Total.
Sickness of employee	31.6	25.0	55.1	11.0	39.1	42.2	30.2
Enforced lay off	10.8	14.4	6.5	56.6	12.9	4.8	16.1
Inability to get work	10.1	25.0	11.0	19.1	41.2	40.7	15.8
Unpaid vacation	16.0	8.8	16.0	6.5	6.2	9.6	13.1
Sickness in employee's family	14.0	7.7	8.7	4.9	.5	1.7	10.6
Home responsibilities	7.3	14.6	1.3	1.0	....	.7	7.4
Other causes	10.2	4.5	1.4	.9	.1	.8	6.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The above table shows that 30.2 per cent of the 6.4 weeks lost during the period of possible employment was due to the sickness of the worker. As has been stated before, it is not the purpose of this report to attempt to trace the relation between occupation and sickness, but simply to state the causes assigned for absences from duty. This large percentage, however, can not but suggest that undesirable conditions prevail. Approximately 16 per cent of the unemployment was due to enforced lay off and about the same proportion to inability to get work. Over 13 per cent was due to unpaid vacation, and about 11 per cent was caused by sickness in the family of the worker. The remaining 14.2 per cent was distributed almost equally between home responsibilities and other causes. Equally important are the figures showing the per cent of women reporting unemployment due to the causes just mentioned. These are given in the table which follows.

TABLE 6.—PER CENT REPORTING SPECIFIED CAUSES OF UNEMPLOYMENT DURING YEAR, AMONG 1,156 WOMEN EMPLOYED AS REGULARS ONLY, BY OCCUPATION GROUPS.

[Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not given. All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment.]

Cause of unemployment.	Per cent reporting each specified cause of unemployment among—						
	Saleswomen.	Cashiers, examiners, etc.	Office employees.	Workroom employees.	Stock girls.	All other occupations.	Total.
Sickness of employee	79.9	75.8	85.0	59.2	88.0	77.1	78.5
Enforced lay off	29.8	33.3	13.2	85.5	40.0	11.4	31.5
Inability to get work	12.5	27.0	7.8	11.8	20.0	22.9	15.4
Unpaid vacation	47.9	30.2	34.7	26.3	16.0	37.1	39.7
Sickness in employee's family	15.8	11.9	13.8	21.1	8.0	8.6	14.6
Home responsibilities	6.5	9.5	2.4	3.9	....	2.9	6.7
Other causes	15.0	20.6	7.2	13.2	4.0	14.3	14.1

Of the total number of women, 78.5 per cent reported sickness, 39.7 per cent reported unpaid vacation, 31.5 per cent reported enforced lay off, and 15.4 per cent reported inability to get work, as causes of unemployment. It is obvious, then, that the factor which exerts the most influence on unemployment is illness of the worker. A study of the occupation groups shows very marked differences in the amounts of unemployment and in the causes thereof.

As shown in Table 4 the average number of weeks during the period studied over which the saleswomen's periods of employment extended was 51. The total amount of unemployment which the saleswomen had during this period amounted to 13.1 per cent of the entire time—equivalent to 6.7 weeks, so that the weeks of full-time employment amounted to only 44.3.

The predominating reason given for unemployment in this, as in nearly every other occupation, was sickness—sickness that varied in duration from half a day to several weeks, and embraced every ailment from a slight indisposition to a serious operation. As shown in Table 5, 31.6 per cent of all the unemployment reported by saleswomen during the period of employment was due to this cause alone. When it is further considered that about 80 per cent of the saleswomen lost time because of sickness and that for every 24 days worked by saleswomen one was lost because of sickness, the industrial importance of this cause, as well as its importance to the individual, becomes apparent. For the 601 saleswomen the amount of sickness averaged nearly 13 days and for the 480 who reported it about 16 days.[1] It should be understood that this does not include all sickness during the year, but only what was reported as resulting in loss of wages during the period of possible employment (51 weeks).

The "unpaid vacation" constituted 16 per cent of the total amount of unemployment of saleswomen. It was reported by 288, or 47.9 per cent of the 601 saleswomen, and averaged for them about 2 weeks apiece.

Sickness in the families of the saleswomen caused 14 per cent of the total unemployment.

Enforced lay offs play an important part in the unemployment of saleswomen though not nearly as important as in some other occupations, 10.8 per cent of their unemployment being due to this cause.

Inability to get work caused 10.1 per cent of the unemployment, and home responsibilities 7.3 per cent. The other causes amount, altogether, to 10.2 per cent of the total.

That the cashiers and examiners have a shorter period of employment than the other groups discussed, and lower even than the general average for all the regulars, is due to the fact that their possible weeks of work averaged considerably less than the possible weeks of work for all. This group contained the large majority of young girls who, during the period under investigation, entered wage-earning ranks for the first time, their average number of weeks previous to first employment being 6.3 weeks as compared with the general average of 1.9 weeks. Their large percentage of unemployment due to inability to get work is also indicative of their youth and of their insecure foothold in store employment.

---

[1] See Table 48, p. 67, for data on which these averages are based.

The office employees seem to have the steadiest employment and the least unemployment among the occupations shown separately in the table. For the average office employee there are 46.7 full weeks of employment.[1] They have 3.3 weeks of unemployment, including scattered days, in a period of 50 weeks. The cause of this unemployment is chiefly sickness of the employee, 55.1 per cent (11 days) being due to this cause. A very small per cent of the office employees' unemployment was due to enforced lay off, only 6.5 per cent being so charged.

As might be expected, the prevailing cause of unemployment among the millinery, alteration, and other workroom women is lay off. The larger stores frequently are able to give their workroom employees some employment in other departments where the dull season in the workroom coincides with the busy season in other departments. At best, however, the women in the workrooms must expect considerably less steady employment than the women in other departments. Their "lay off" generally comes in the form of a winter vacation varying from two to eight weeks, and a summer vacation of corresponding length, though it may come a few days or an occasional week at a time.

While enforced lay off is the prevailing cause of unemployment in these workroom occupations, inability to get work is the next most important cause, and sickness is of less importance than in any other occupation group, causing only 11 per cent of the unemployment. A very small per cent of unemployment was charged to unpaid vacation by this group. Naturally, the women who were obliged to take so many weeks off would find in those weeks all the "vacation" they needed or could afford.

The amount of time lost through changing positions—that is, through shifting from store to store, thereby losing scattered days and half days—was too small to warrant a separate column in these summary tables.[2] More interesting and instructive is the fact that the insignificance of this loss was due not so much to the close connections made when changing positions as to the fact (as shown by the following table) that 90.2 per cent of the 1,156 women did not change their places of employment during the year under investigation, that 8.3 per cent worked in only two retail establishments, and that less than 2 per cent were employed in three or more stores. The entire 1,156 women averaged 3.93 years of service in one establishment.[1] It is true that these 1,156 represent those who worked only as regulars during the period of investigation, but they represent the large majority of normal wage-earning women.

---

[1] See Table 4, p. 16.

[2] See Table 48, p. 67, giving extent and causes of unemployment in detail.

The number and per cent of women who reported work as regulars in one and in more than one establishment or industry are shown in the following table:

TABLE 7.—NUMBER AND PER CENT OF WOMEN REPORTING REGULAR WORK IN ONE OR MORE RETAIL STORES AND IN ONE OR MORE INDUSTRIES.

[Women who lost less than 6 days during the period covered are not included in this table. Their inclusion would tend to increase the proportion employed in one store only.]

Employment during year in—	Women reporting.		Employment during year in—	Women reporting.	
	Number.	Per cent.		Number.	Per cent.
1 retail store	1,043	90.2	1 industry	1,064	92.0
2 retail stores	96	8.3	2 industries	80	6.9
3 retail stores	17	1.5	3 industries	11	1.0
			4 industries	1	([1])
Total	1,156	100.0	Total	1,156	100.0

[1] Less than one-tenth of 1 per cent.

Of further interest in this connection are the causes assigned for leaving positions in stores. Only 171 of the women interviewed had, during the year studied, left their places in retail stores. Thirty-four per cent said they left because the store "laid them off," having no longer need of their services; 19 per cent left to get better positions in other stores; 10 per cent left because of illness. The failure of one large store and the burning of another threw out of work a good many women who subsequently found work in other stores. Among the other reasons assigned were family demands, disagreements with employers or other employees, work too hard, marriage, and a few miscellaneous personal reasons. While this assignment of reasons for leaving must stand unverified by the employer, there seemed to be no attempt on the part of the individuals to evade a correct answer. The employers might have been able to add light in some cases as to the reason for which individuals were "laid off" (laid off being used here in the sense of dismissed), but except in such cases it does not seem probable that the information which the employer could have supplied would have changed the classification.

TIME LOST WHILE ON PAY ROLL OF RETAIL STORES.

The foregoing discussion deals with the amount of time lost during the whole period of industrial employment within the year covered. What amount of unemployment occurred while the worker was actually in the employ of retail stores is a question of interest and importance. Table 4 includes not only the time lost in other pursuits, which is a negligible quantity, but also the important item of time lost between jobs. Some portion of the time thus lost might fairly be charged to the account of the retail stores. If they do not offer continuous employment and if the worker must expect to lose a certain portion of the year in looking for work, that is a fact which must be considered in making an estimate of the opportunities the industry offers. But if the worker has changed from retail-store work to some other kind, a part of the time lost in looking for work might be chargeable to the second industry, and the question of what part of the unemployment should be attributed to each is entirely too complex to be taken up without a much fuller investigation than it was possible to make at this time. Therefore the discussion must be limited to the time lost while the workers were actually on the pay rolls of retail stores.

---

[1] The omission of those women who lost less than six days during the year has probably had the effect of depressing this figure and making the showing an understatement.

In making this limitation it must be borne in mind that some establishments made a practice of dropping from their books the name of any employee who was absent more than a given number of days after marking her "left," even though they knew she was to return at some definite time. This was done for the purpose of facilitating the bookkeeping. For the purposes of this report, however, a woman was not considered as having left any establishment as long as her position was held open to her and she intended and was expected to go back, so that while a woman might appear on the pay roll as "left December 31" and "returned February 1," the absence would appear in this report as temporary absence from December 31 to February 1, due to one of the specified causes.

The following table shows, by occupation groups, the employment and unemployment in retail stores reported by the 1,156 women employed as regulars only:

TABLE 8.—AVERAGE WEEKS OF EMPLOYMENT AND UNEMPLOYMENT IN RETAIL STORES REPORTED BY WOMEN EMPLOYED AS REGULARS ONLY, BY OCCUPATION GROUPS.

[Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not given. All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment.]

Item.	Saleswomen.	Cashiers, examiners, etc.	Office employees.	Workroom employees.	Stock girls.	Others.	Total.
Number reporting	601	252	167	76	25	35	1,156
Weeks on store pay rolls	47.2	39.8	48.7	47.6	40.4	45.8	45.6
Weeks of unemployment during period:							
Full weeks	2.5	1.5	1.6	5.6	2.7	1.1	2.3
Weeks made up of scattered days	1.7	1.3	1.3	1.9	1.2	1.3	1.6
Total	4.2	2.8	2.9	7.5	3.9	2.4	3.9
Full weeks of employment	43.0	37.0	45.8	40.1	36.5	43.4	41.7
Per cent of period on store pay roll that worker was unemployed	8.9	7.0	6.0	15.7	9.7	5.2	8.6

The table shows a serious amount of unemployment occurring during this period of nominal employment; taking the group as a whole, the workers lost one-twelfth of the time they were on the store pay rolls, their earnings of course being correspondingly diminished. The amount of lost time varied considerably according to occupation. The small group classed as "Others" lost only about one-twentieth of their period of employment, while the workroom employees lost nearly one-sixth. Among the classified workers the office employees show the smallest loss, but the cashiers, examiners, etc., have but little more. The saleswomen come very close to the average loss of the whole body, being unemployed for 8.9 per cent of the time during which they were on retail-store pay rolls, while for the whole body the average time lost was 8.6 per cent.

The following table shows the proportion of workers in each occupation group who lost time through various specified causes and the proportion of their lost time due to each of these causes:

TABLE 9.—PER CENT OF WOMEN EMPLOYED AS REGULARS IN RETAIL STORES REPORTING SPECIFIED CAUSES OF UNEMPLOYMENT AND PER CENT OF UNEMPLOYMENT DUE TO EACH CAUSE, BY OCCUPATION GROUPS.

[Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not given. All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment. For an accurate understanding of the unemployment due to each specified cause this table must be considered in connection with Table 8. The data upon which this table is based are given in full in Table 48.]

Occupation group.	Per cent reporting specified causes.				Per cent of unemployment due to specified causes.				
	Sickness of employee.	Enforced lay off.	Unpaid vacation.	Sickness in family.	Sickness of employee.	Enforced lay off.	Unpaid vacation.	Sickness in family.	Other causes.
Saleswomen	74.2	25.3	45.6	14.8	42.4	16.8	23.7	13.1	4.0
Cashiers, examiners, bundle wrappers, etc.	73.4	33.3	26.6	11.1	39.2	26.7	14.6	9.1	10.4
Office employees	85.0	13.2	34.7	13.8	62.2	7.4	18.2	9.8	2.5
Workroom employees	56.6	85.5	22.4	21.1	10.3	74.7	4.5	6.9	3.6
Stock girls	84.0	40.0	12.0	8.0	65.9	22.6	10.6	.9	[1]
All other occupations	68.6	11.4	37.1	8.6	56.3	11.1	24.5	4.3	3.8
Total	75.0	29.2	37.5	14.1	40.3	24.4	18.7	10.7	5.9

[1] Less than one-tenth of 1 per cent.

The office employees and the stock girls show larger percentages of workers losing time through illness than appear elsewhere. The workroom employees are the only group among whom the proportion affected by illness is not larger than the proportion affected by any other cause; among them the proportion who lost time through an enforced lay off corresponds almost exactly to the proportion of office employees and of stock girls who lost time through illness. For the whole 1,156 workers the proportion affected by illness is precisely twice as large as that affected by the next most prevalent cause—the unpaid vacation.

Turning to the proportion of unemployment due to each specified cause, illness maintains a leading position, although it is not as predominant as in the table showing the proportion of workers affected by each cause. The office employees and the miscellaneous workers, who both had small percentages of time lost, show larger proportions of unemployment due to illness than to all other causes put together; the same is true of the stock girls among whom the proportion of time lost rose above the average. The workroom employees are the only ones among whom illness is not the most serious cause of lost time, yet for the whole body personal illness accounts for only two-fifths of the time lost. Speaking approximately, illness, either of the worker herself or of some member of her family, accounts for half the time lost while on retail store pay rolls, and other causes, largely industrial, make up the other half.

EARNINGS RELATED TO UNEMPLOYMENT.

As the seriousness of unemployment depends not only upon its extent and cause, but upon the earnings of the women while at work, it becomes important to know whether the amount and causes of unemployment bear any close relation to the full-time weekly earnings. The table below shows the extent of employment and unemployment, by earnings groups, for the women employed as regulars only.

TABLE 10.—AVERAGE WEEKS OF EMPLOYMENT AND UNEMPLOYMENT REPORTED BY WOMEN AND GIRLS EMPLOYED AS REGULARS ONLY, AND PER CENT OF UNEMPLOYMENT DUE TO SPECIFIED CAUSES, BY AVERAGE FULL-TIME WEEKLY EARNINGS IN STORES.

[All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment.]

Item.	Average full-time weekly earnings in stores.										
	Under $4.	$4 and under $5.	$5 and under $6.	$6 and under $7.	$7 and under $8.	$8 and under $9.	$9 and under $10.	$10 and under $12.	$12 and over.	Not reported.	Total.
Number reporting	79	187	117	97	125	284	98	95	71	3	1,156
Per cent in each wage group	6.8	16.2	10.1	8.4	10.8	24.6	8.5	8.2	6.1	0.3	100.0
Weeks not in industrial pursuits:											
Before first employment	8.8	5.6	2.8	.5	.2	.2	.....	.....	.....	.....	1.9
After leaving industrial pursuits	.6	.....	.3	.5	.8	.5	.7	.4	.8	.....	.5
Total	9.4	5.6	3.1	1.0	1.0	.7	.7	.4	.8	.....	2.4
Weeks of possible employment during year	42.6	46.4	48.9	51.0	51.0	51.3	51.3	51.6	51.2	52.0	49.6
Weeks in employ of—											
Stores	36.8	41.4	40.7	45.6	47.1	48.7	47.8	51.1	49.6	51.3	45.6
Other industries	2.3	2.4	5.7	1.6	1.2	.6	.5	.1	.4	.....	1.6
Total	39.1	43.8	46.4	47.2	48.3	49.3	48.3	51.2	50.0	51.3	47.2
Weeks of unemployment during period of possible employment:											
While without a job	3.5	2.6	2.5	3.8	2.7	2.0	3.0	.4	1.2	.7	2.4
While in employ of stores	3.0	3.2	3.3	3.6	3.5	4.2	4.5	5.1	5.3	2.8	3.9
While in employ of other industries	.1	.2	.2	(1)	(1)	(1)	(1)	.....	.....	.....	.1
Total	6.6	6.0	6.0	7.4	6.2	6.2	7.5	5.5	6.5	3.5	6.4
Per cent of unemployment in period of possible employment	15.5	12.9	12.3	14.5	12.2	12.1	13.7	10.7	12.7	6.7	12.9
Full weeks actually worked (weeks of possible employment less weeks of unemployment)	36.0	40.4	42.9	43.6	44.8	45.1	43.8	46.1	44.7	48.5	43.2
Per cent of unemployment due to—											
Unpaid vacation	8.8	9.7	11.4	13.4	12.6	11.7	10.1	23.5	25.3	5.0	13.0
Sickness in employee's family	7.6	12.6	7.4	8.2	9.5	11.6	15.1	8.6	11.4	.....	10.6
Enforced lay off	13.0	21.1	11.8	9.8	10.9	13.4	24.6	22.0	22.4	44.0	16.1
Sickness of employee	21.3	17.8	32.8	32.6	30.6	36.8	31.0	35.7	24.5	45.0	29.9
Other reported causes	48.9	38.8	36.6	35.9	36.4	26.5	19.2	10.0	16.2	6.0	30.3
Causes not reported	.4	(1)	.....	.1	.....	(1)	.....	.2	.2	.....	.1

[1] Less than one-tenth of 1 per cent.

While between the amount of unemployment and the classified weekly earnings no especially significant relation is revealed, there must be, of course, for each individual a very vital significance in the amount of her personal unemployment, varying according to her wage rate, and the student of unemployment is confronted with the need of information as to the earnings and the drain made upon them by the lost time.

Table 11 shows for the women employed as regulars only the average amount earned during the year in stores and in other industries, by classified amounts earned in stores.

TABLE 11.—AVERAGE ANNUAL EARNINGS IN STORES AND IN OTHER INDUSTRIES, OF WOMEN EMPLOYED AS REGULARS ONLY, BY CLASSIFIED AMOUNTS EARNED IN STORES, AND BY OCCUPATION GROUPS.

[Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not given.]

Classified amount of earnings in retail stores during year.	Saleswomen.				Cashiers, examiners, etc.			
	Employment in stores.		Additional employment in other industries.		Employment in stores.		Additional employment in other industries.	
	Number employed.	Average amount earned.	Number employed.	Average amount earned.	Number employed.	Average amount earned.	Number employed.	Average amount earned.
Under $50	11	$34.03	[1] 6	[2] $252.25	26	$33.25	9	$160.64
$50 and under $100	[1] 17	69.55	7	[3] 203.16	32	76.22	12	63.58
$100 and under $150	20	126.99	9	[4] 131.70	39	126.79	[1] 9	49.39
$150 and under $200	[1] 27	175.90	4	[5] 69.50	87	175.55	8	31.75
$200 and under $250	[1] 37	227.97	2	65.75	53	220.31	....	....
$250 and under $300	56	279.98	....	....	11	269.34	....	....
$300 and under $350	73	324.72	2	55.38	3	335.52	....	....
$350 and under $400	109	376.23	....	....	1	398.00	....	....
$400 and under $450	[1] 100	419.38	....	....	....	....	....	....
$450 and under $500	55	474.53	1	70.00	....	....	....	....
$500 and under $550	32	524.19	....	....	....	....	....	....
$550 and under $600	20	572.68	....	....	....	....	....	....
$600 and under $650	8	620.93	....	....	....	....	....	....
$650 and under $750	8	704.78	....	....	....	....	....	....
$750 and under $850	6	803.37	....	....	....	....	....	....
$850 and over	9	891.21	....	....	....	....	....	....
Total	[6] 597	370.27	[1] 31	[7] 151.97	252	157.00	[1] 38	76.51
	Office employees.				Workroom employees.			
Under $50	6	$36.72	1	$205.00	1	$34.50	....	....
$50 and under $100	2	86.33	([8])	....	2	97.43	1	$82.00
$100 and under $150	4	134.75	1	66.00	7	127.17	3	153.22
$150 and under $200	10	178.17	3	190.33	5	172.71	....	....
$200 and under $250	16	220.45	1	4.00	3	223.74	....	....
$250 and under $300	16	269.10	....	....	3	290.20	....	....
$300 and under $350	21	326.62	....	....	8	327.39	....	....
$350 and under $400	36	380.86	1	56.00	16	377.76	....	....
$400 and under $450	37	408.56	([9])	....	11	426.90	....	....
$450 and under $500	9	474.31	....	....	8	477.95	....	....
$500 and under $550	4	521.53	....	....	1	508.76	....	....
$550 and under $600	1	550.00	....	....	3	570.04	....	....
$600 and under $650	2	616.21	....	....	1	607.00	....	....
$650 and under $750	1	733.25	....	....	2	699.58	....	....
$750 and under $850	1	784.00	....	....	3	775.10	....	....
$850 and over	1	1,540.00	....	....	2	1,222.62	....	....
Total	167	344.74	[10] 7	128.86	76	390.84	4	135.42

[1] Not including 1 woman whose exact earnings were not reported.

[2] One woman received board in addition to earnings.

[3] One woman received room and board in addition to earnings; earnings for 9 weeks not reported by 1 woman.

[4] One woman received board and 1 woman received room and board in addition to earnings.

[5] One woman received room and board in addition to earnings.

[6] Not including 4 women whose exact earnings were not reported.

[7] See notes to details.

[8] One woman earned between $50 and $100, but the exact amount was not reported.

[9] One woman earned between $400 and $450, but the exact amount was not reported.

[10] Not including 2 women whose exact earnings were not reported.

during the period under investigation, entered wage-earning ranks for the first time, their average number of weeks previous to first employment being 6.3 weeks as compared with the general average of 1.9 weeks. Their large percentage of unemployment due to inability to get work is also indicative of their youth and of their insecure foothold in store employment.

The office employees seem to have the steadiest employment and the least unemployment among the occupations shown separately in the table. For the average office employee there are 46.7 full weeks of employment.[1] They have 3.3 weeks of unemployment, including scattered days, in a period of 50 weeks. The cause of this unemployment is chiefly sickness of the employee, 55.1 per cent (11 days) being due to this cause. A very small per cent of the office employees' unemployment was due to enforced lay off, only 6.5 per cent being so charged.

As might be expected, the prevailing cause of unemployment among the millinery, alteration, and other workroom women is lay off. The larger stores frequently are able to give their workroom employees some employment in other departments where the dull season in the workroom coincides with the busy season in other departments. At best, however, the women in the workrooms must expect considerably less steady employment than the women in other departments. Their "lay off" generally comes in the form of a winter vacation varying from two to eight weeks, and a summer vacation of corresponding length, though it may come a few days or an occasional week at a time.

While enforced lay off is the prevailing cause of unemployment in these workroom occupations, inability to get work is the next most important cause, and sickness is of less importance than in any other occupation group, causing only 11 per cent of the unemployment. A very small per cent of unemployment was charged to unpaid vacation by this group. Naturally, the women who were obliged to take so many weeks off would find in those weeks all the "vacation" they needed or could afford.

The amount of time lost through changing positions—that is, through shifting from store to store, thereby losing scattered days and half days—was too small to warrant a separate column in these summary tables.[2] More interesting and instructive is the fact that the insignificance of this loss was due not so much to the close connections made when changing positions as to the fact (as shown by the following table) that 90.2 per cent of the 1,156 women did not change their places of employment during the year under investigation, that 8.3 per cent worked in only two retail establishments, and that less than 2 per cent were employed in three or more stores. The entire 1,156 women averaged 3.93 years of service in one establishment.[1] It is true that these 1,156 represent those who worked only as regulars during the period of investigation, but they represent the large majority of normal wage-earning women.

---

[1] See Table 4, p. 16.

[2] See Table 48, p. 67, giving extent and causes of unemployment in detail.

The number and per cent of women who reported work as regulars in one and in more than one establishment or industry are shown in the following table:

TABLE 7.—NUMBER AND PER CENT OF WOMEN REPORTING REGULAR WORK IN ONE OR MORE RETAIL STORES AND IN ONE OR MORE INDUSTRIES.

[Women who lost less than 6 days during the period covered are not included in this table. Their inclusion would tend to increase the proportion employed in one store only.]

Employment during year in—	Women reporting.		Employment during year in—	Women reporting.	
	Number.	Per cent.		Number.	Per cent.
1 retail store	1,043	90.2	1 industry	1,064	92.0
2 retail stores	96	8.3	2 industries	80	6.9
3 retail stores	17	1.5	3 industries	11	1.0
			4 industries	1	(1)
Total	1,156	100.0	Total	1,156	100.0

1 Less than one-tenth of 1 per cent.

Of further interest in this connection are the causes assigned for leaving positions in stores. Only 171 of the women interviewed had, during the year studied, left their places in retail stores. Thirty-four per cent said they left because the store "laid them off," having no longer need of their services; 19 per cent left to get better positions in other stores; 10 per cent left because of illness. The failure of one large store and the burning of another threw out of work a good many women who subsequently found work in other stores. Among the other reasons assigned were family demands, disagreements with employers or other employees, work too hard, marriage, and a few miscellaneous personal reasons. While this assignment of reasons for leaving must stand unverified by the employer, there seemed to be no attempt on the part of the individuals to evade a correct answer. The employers might have been able to add light in some cases as to the reason for which individuals were "laid off" (laid off being used here in the sense of dismissed), but except in such cases it does not seem probable that the information which the employer could have supplied would have changed the classification.

TIME LOST WHILE ON PAY ROLL OF RETAIL STORES.

The foregoing discussion deals with the amount of time lost during the whole period of industrial employment within the year covered. What amount of unemployment occurred while the worker was actually in the employ of retail stores is a question of interest and importance. Table 4 includes not only the time lost in other pursuits, which is a negligible quantity, but also the important item of time lost between jobs. Some portion of the time thus lost might fairly be charged to the account of the retail stores. If they do not offer continuous employment and if the worker must expect to lose a certain portion of the year in looking for work, that is a fact which must be considered in making an estimate of the opportunities the industry offers. But if the worker has changed from retail-store work to some other kind, a part of the time lost in looking for work might be chargeable to the second industry, and the question of what part of the unemployment should be attributed to each is entirely too complex to be taken up without a much fuller investigation than it was possible to make at this time. Therefore the discussion must be limited to the time lost while the workers were actually on the pay rolls of retail stores.

---

[1] The omission of those women who lost less than six days during the year has probably had the effect of depressing this figure and making the showing an understatement.

In making this limitation it must be borne in mind that some establishments made a practice of dropping from their books the name of any employee who was absent more than a given number of days after marking her "left," even though they knew she was to return at some definite time. This was done for the purpose of facilitating the bookkeeping. For the purposes of this report, however, a woman was not considered as having left any establishment as long as her position was held open to her and she intended and was expected to go back, so that while a woman might appear on the pay roll as "left December 31" and "returned February 1," the absence would appear in this report as temporary absence from December 31 to February 1, due to one of the specified causes.

The following table shows, by occupation groups, the employment and unemployment in retail stores reported by the 1,156 women employed as regulars only:

TABLE 8.—AVERAGE WEEKS OF EMPLOYMENT AND UNEMPLOYMENT IN RETAIL STORES REPORTED BY WOMEN EMPLOYED AS REGULARS ONLY, BY OCCUPATION GROUPS.

[Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not given. All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment.]

Item.	Saleswomen.	Cashiers, examiners, etc.	Office employees.	Workroom employees.	Stock girls.	Others.	Total.
Number reporting	601	252	167	76	25	35	1,156
Weeks on store pay rolls	47.2	39.8	48.7	47.6	40.4	45.8	45.6
Weeks of unemployment during period:							
Full weeks	2.5	1.5	1.6	5.6	2.7	1.1	2.3
Weeks made up of scattered days	1.7	1.3	1.3	1.9	1.2	1.3	1.6
Total	4.2	2.8	2.9	7.5	3.9	2.4	3.9
Full weeks of employment	43.0	37.0	45.8	40.1	36.5	43.4	41.7
Per cent of period on store pay roll that worker was unemployed	8.9	7.0	6.0	15.7	9.7	5.2	8.6

The table shows a serious amount of unemployment occurring during this period of nominal employment; taking the group as a whole, the workers lost one-twelfth of the time they were on the store pay rolls, their earnings of course being correspondingly diminished. The amount of lost time varied considerably according to occupation. The small group classed as "Others" lost only about one-twentieth of their period of employment, while the workroom employees lost nearly one-sixth. Among the classified workers the office employees show the smallest loss, but the cashiers, examiners, etc., have but little more. The saleswomen come very close to the average loss of the whole body, being unemployed for 8.9 per cent of the time during which they were on retail-store pay rolls, while for the whole body the average time lost was 8.6 per cent.

The following table shows the proportion of workers in each occupation group who lost time through various specified causes and the proportion of their lost time due to each of these causes:

TABLE 9.—PER CENT OF WOMEN EMPLOYED AS REGULARS IN RETAIL STORES REPORTING SPECIFIED CAUSES OF UNEMPLOYMENT AND PER CENT OF UNEMPLOYMENT DUE TO EACH CAUSE, BY OCCUPATION GROUPS.

[Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not given. All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment. For an accurate understanding of the unemployment due to each specified cause this table must be considered in connection with Table 8. The data upon which this table is based are given in full in Table 48.]

Occupation group.	Per cent reporting specified causes.				Per cent of unemployment due to specified causes.				
	Sickness of employee.	Enforced lay off.	Unpaid vacation.	Sickness in family.	Sickness of employee.	Enforced lay off.	Unpaid vacation.	Sickness in family.	Other causes.
Saleswomen	74.2	25.3	45.6	14.8	42.4	16.8	23.7	13.1	4.0
Cashiers, examiners, bundle wrappers, etc.	73.4	33.3	26.6	11.1	39.2	26.7	14.6	9.1	10.4
Office employees	85.0	13.2	34.7	13.8	62.2	7.4	18.2	9.8	2.5
Workroom employees	56.6	85.5	22.4	21.1	10.3	74.7	4.5	6.9	3.6
Stock girls	84.0	40.0	12.0	8.0	65.9	22.6	10.6	.9	(1)
All other occupations	68.6	11.4	37.1	8.6	56.3	11.1	24.5	4.3	3.8
Total	75.0	29.2	37.5	14.1	40.3	24.4	18.7	10.7	5.9

[1] Less than one-tenth of 1 per cent.

The office employees and the stock girls show larger percentages of workers losing time through illness than appear elsewhere. The workroom employees are the only group among whom the proportion affected by illness is not larger than the proportion affected by any other cause; among them the proportion who lost time through an enforced lay off corresponds almost exactly to the proportion of office employees and of stock girls who lost time through illness. For the whole 1,156 workers the proportion affected by illness is precisely twice as large as that affected by the next most prevalent cause—the unpaid vacation.

Turning to the proportion of unemployment due to each specified cause, illness maintains a leading position, although it is not as predominant as in the table showing the proportion of workers affected by each cause. The office employees and the miscellaneous workers, who both had small percentages of time lost, show larger proportions of unemployment due to illness than to all other causes put together; the same is true of the stock girls among whom the proportion of time lost rose above the average. The workroom employees are the only ones among whom illness is not the most

TABLE 13.—AVERAGE ACTUAL WEEKLY EARNINGS AND AVERAGE FULL-TIME WEEKLY EARNINGS OF WOMEN EMPLOYED AS REGULARS ONLY, IN INDUSTRIES OTHER THAN MERCANTILE, BY OCCUPATION GROUPS.

[The average actual weekly earnings were obtained by dividing the total earnings by the number of weeks during which there was some employment; and the average full-time weekly earnings by dividing the amount earned by the number of full weeks actually worked. Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not given.]

Occupation group.	Total women scheduled.	Women reporting work in other industries.		Average actual weekly earnings.	Average full-time weekly earnings.
		Number.	Per cent.		
Saleswomen	601	[1] 32	5.3	[2] $6.46	[2] $6.55
Cashiers, examiners, bundle wrappers, etc	252	39	15.5	[3] 4.68	[3] 4.91
Office employees	167	9	5.4	[4] 7.84	[4] 7.89
Workroom employees	76	4	5.3	7.22	7.39
Stock girls	25	4	16.0	6.36	6.42
Miscellaneous	35	4	11.4	7.85	7.97
Total	1,156	[1] 92	8.0	[5] 6.03	[5] 6.19

[1] Four women received in addition room and board, 1 woman room, board, and laundry, and 1 board only.
[2] Average based on 25 employees.
[3] Average based on 35 employees.
[4] Average based on 7 employees.
[5] Average based on 79 employees.

The women who reported work in more than one industry were for the greater part the younger and less experienced women and some were inefficient. The earnings of these women, as shown in Table 13, bear out this statement, for nearly half (46.7 per cent) of the women who report work in other industries were in the retail stores as cashiers and examiners or stock girls. More than a third were saleswomen, and the greater part of these were employees of 5 and 10 cent stores. Ten per cent had office work, and the other occupation groups were represented by but 4 employees. It will be noted that the average actual earnings and the average full-time earnings in other industries of the women shown in the table, who in retail stores had been employed as saleswomen, were distinctly lower than the average earnings of all saleswomen in retail stores. The table does not show separately the earnings of these girls in the stores, but the original records show that the average was approximately the same as that in other industries. This circumstance indicates that in general the saleswomen who supplemented their store earnings by work in other industries were among the less efficient.

While it might be expected that workroom employees would supplement their earnings in other employment, since they have so much unemployment in the stores, they are seldom found among those reporting "other employment."[1]

DEPENDENCY OF WORKERS ON EARNINGS.

The foregoing sections of the report explain the demands made upon full-time weekly earnings by time lost during periods of employment. But this drain on earnings due to time lost does not indicate the social and economic significance of unemployment, because it is not brought into relation with the degree to which the worker is dependent upon her earnings for a living, nor to the degree of the family's dependency upon such earnings. This information is indispensable to an intelligent discussion of the significance of unemployment among women.

---

[1] See page 31.

AGE, CONJUGAL CONDITION, AND MANNER OF LIVING.

Summaries of the ages, conjugal condition, and manner of living, presented in the three tables following, will contribute to a better understanding of the discussion of the degrees of dependency of the 1,156 women.

TABLE 14.—CLASSIFIED AGES OF WOMEN EMPLOYED AS REGULARS ONLY.

Age group.	Number.	Per cent.	Age group.	Number.	Per cent.
Under 16	69	6.0	40 and under 45	51	4.4
16 and under 18	201	17.4	45 and under 50	28	2.4
18 and under 21	234	20.3	50 and under 55	13	1.1
21 and under 25	224	19.4	55 and under 60	6	.5
25 and under 30	162	14.0	60 and over	6	.5
30 and under 35	101	8.8			
35 and under 40	59	5.1	Total	[1] 1,154	100.0

[1] Not including 2, ages not reported.

TABLE 15.—CONJUGAL CONDITION OF WOMEN EMPLOYED AS REGULARS ONLY.

Conjugal condition.	Number.	Per cent.
Single	1,042	90.1
Married	50	4.3
Widowed	48	4.2
Divorced or separated	16	1.4
Total	1,156	100.0

TABLE 16.—MANNER OF LIVING OF WOMEN EMPLOYED AS REGULARS ONLY.

Manner of living.	Number.	Per cent.
Independently:		
As head of family	43	3.7
As boarder or lodger	89	7.7
As member of family group:[1]		
Daughter	875	75.7
Wife	33	2.9
Sister or sister-in-law	86	7.4
Niece	21	1.8
Other relative	9	.8
Total	1,156	100.0

[1] This does not mean that a woman might not be paying board or otherwise contributing to the family support.

Table 15 shows that of the 1,156 regulars 90.1 per cent were single, and while 9.9 per cent had been married, only 4.3 per cent were living as wives at the time of this investigation. As shown by Table 16, 75.7 per cent were living at home with one or both parents, 12.9 per cent were living or boarding with relatives, 7.7 per cent were boarding with strangers or friends, and 3.7 per cent were women themselves at the head of the family groups. Table 14 indicates that most of the women employed in the retail stores are young, 63 per cent being under 25 and 77 per cent under 30, but because they are young and for the most part live "at home" it does not follow that they are sheltered by the paternal roof beyond fear of want. In fact, in a great many homes there were no male wage earners at all.

The women interviewed were classified according to the degree to which they depended upon their earnings. In the first group were the women totally dependent, meaning for the purposes of this investigation that there was nothing but public or private charity between themselves and want if the earnings were cut off. The second group, designated as "principally dependent," were those who had families which could in an emergency provide room and board if the workers were temporarily out of work, but by so doing would lower their own standards of living. Many women in this group might actually be providing for themselves entirely and even helping others in the family, but they would have the advantage over those in the "totally dependent" class of having a home during temporary unemployment. In the third group were those only "partially dependent" on their earnings. This took in the women who had families which could provide them with room and board, but not clothing, if they were temporarily out of work, without actually lowering to any extent the family standard. The fourth group included those not dependent on their earnings for necessaries; in other words, women whose parents or relatives could provide them with board, lodging, and necessary clothing if they were not working. In practically all such cases, however, in order to supply themselves with the kind of clothes and the spending money which they desired, the girls were obliged to work. The number and per cent of regulars in each of these groups is shown in the table which follows:

TABLE 17.—DEGREE OF DEPENDENCY ON EARNINGS OF WOMEN EMPLOYED AS REGULARS ONLY.

Degree of dependency on earnings.	Women reporting.	
	Number.	Per cent.
Totally dependent	107	9.3
Principally dependent	976	84.4
Partially dependent	60	5.2
Not dependent for necessaries	13	1.1
Total	1,156	100.0

The great majority of the regular employees, 84.4 per cent, were classed as "principally dependent on their earnings" and the next largest group was those totally dependent on their own earnings, 9.3 per cent being so classified. The group partially dependent had in it 60 women, or 5.2 per cent, and only 13 women, or 1.1 per cent, were found to be "not dependent for necessaries" on their earnings. This brings out clearly the fact that the overwhelming majority of women are not working for "pin money" or for the pleasure and excitement of the work, and that the earnings of a girl living at home are in most cases just as necessary to her as are the earnings of her brother to him.

Following this classification of dependency a step further and bringing it into relation with the total amount of unemployment during the year, and with the total amount earned during the year, both the unemployment and the earnings become more significant.

UNEMPLOYMENT RELATED TO DEGREE OF DEPENDENCY ON EARNINGS.

For the sake of clearness the employment record for the whole year, as reported by the 1,156 regulars, is presented in the following table, the chief purpose of which is to show the amount of unemployment for each of the groups of women just described:

TABLE 18.—AVERAGE WEEKS OF EMPLOYMENT AND UNEMPLOYMENT REPORTED BY WOMEN AND GIRLS EMPLOYED AS REGULARS ONLY, BY DEGREE OF DEPENDENCY UPON EARNINGS.

[All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment.]

Item.	Totally dependent upon earnings.	Principally dependent upon earnings.	Partially dependent upon earnings.	Not dependent upon earnings for necessaries.	Total.
Number reporting	107	976	60	13	1,156
Per cent in each group	9.3	84.4	5.2	1.1	100.0
Weeks not in industrial pursuits:					
Before first employment	......	1.7	6.3	11.8	1.9
After leaving industrial pursuits	1.1	.3	1.8	1.4	.5
Total	1.1	2.0	8.1	13.2	2.4
Weeks of possible employment during year	50.9	50.0	43.9	38.8	49.6
Weeks in employ of—					
Stores	47.7	46.0	39.5	31.1	45.6
Other industries	1.8	1.7	.3	......	1.6
Total	49.5	47.7	39.8	31.1	47.2
Weeks of unemployment during period of possible employment:					
While without a job	1.4	2.3	4.1	7.7	2.4
While in employ of stores	4.6	3.8	3.9	5.4	3.9
While in employ of other industries	......	.1	......	......	.1
Total	6.0	6.2	8.0	13.1	6.4
Per cent of unemployment in period of possible employment	11.8	12.4	18.2	33.8	12.9
Full weeks actually worked (weeks of possible employment less weeks of unemployment)	44.9	43.8	35.9	25.7	43.2

The only accurate measurement of unemployment is obtained by comparing time lost with the possible wage-earning weeks in the year both in stores and other industries for 1,156 women. The possible wage-earning weeks include all weeks from the beginning to the end of the period under investigation, except weeks before first employment and weeks after leaving industrial pursuits. Time not employed after entrance into and before leaving industry may properly be analyzed as voluntary or involuntary unemployment. The average number of possible weeks of work in the year was, for all women, 49.6. For 6.4 weeks, or 12.9 per cent, of this time there was no employment; that is, the average number of full-time weeks of employment was 43.2. Except in Table 24, no absence due to sickness or other causes was included as unemployment in this report if paid for by the employers.

The numbers who were only partially or not at all dependent on their earnings are so small as to render the averages and percentages of little significance; those totally or principally dependent upon their earnings are numerous enough to render both averages and percentages of considerable significance. By showing the extent of unemployment in the groups depending in varying degrees upon their earnings for a living, a much clearer indication is given of actual conditions among the women investigated than can be obtained from general averages covering all classes of women.

The causes of unemployment as reported by the women in the various groups are shown in Tables 19 and 20, which follow. Table 19 indicates the percentage of unemployment due to each specified cause, and Table 20 the per cent of women in each group who reported unemployment from each specified cause.

TABLE 19.—PER CENT OF UNEMPLOYMENT DUE TO EACH SPECIFIED CAUSE, AMONG 1,156 WOMEN EMPLOYED AS REGULARS ONLY, BY DEGREE OF DEPENDENCY ON EARNINGS.

[All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment. For an accurate understanding of the unemployment due to each specified cause this table must be considered in connection with Table 10. The data upon which this table is based are given in full in Table 49.]

Cause of unemployment.	Per cent of unemployment due to specified causes, among women—				
	Totally dependent.	Principally dependent.	Partially dependent.	Not dependent for necessaries.	Total.
Sickness of employee	28.2	31.2	25.7	16.4	30.2
Enforced lay off	32.0	14.8	13.1	13.9	16.1
Inability to get work	5.1	17.1	16.2	7.6	15.8
Unpaid vacation	15.0	13.1	11.9	7.2	13.1
Sickness in employee's family	11.7	10.1	11.6	22.9	10.6
Home responsibilities	1.8	7.7	3.9	25.2	7.4
Other causes	6.2	6.0	17.6	6.8	6.8
Total	100.0	100.0	100.0	100.0	100.0

TABLE 20.—PER CENT REPORTING SPECIFIED CAUSES OF UNEMPLOYMENT, AMONG 1,156 WOMEN EMPLOYED AS REGULARS ONLY, BY DEGREE OF DEPENDENCY ON TEARNINGS.

[All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment.]

Cause of unemployment.	Per cent reporting each specified cause of unemployment among women—				
	Totally dependent.	Principally dependent.	Partially dependent.	Not dependent for necessaries.	Total.
Sickness of employee	78.5	79.1	73.3	53.8	78.5
Enforced lay off	39.3	31.4	20.0	30.8	31.5
Inability to get work	9.3	16.3	13.3	7.7	15.4
Unpaid vacation	38.3	39.0	53.3	38.5	39.7
Sickness in employee's family	17.8	14.5	10.0	15.4	14.6
Home responsibilities	3.7	6.4	1.7	30.8	6.1
Other causes	9.3	15.1	18.3	15.4	14.7

As shown in Table 18, of the total number of women, 107 were totally dependent on their own earnings; that is, were without families that could support them even temporarily if they were out of employment. For these women any prolonged unemployment would mean debt, charity, or help from friends unless they had been able to save. Many told of struggles to get along during periods of unemployment, of small savings entirely used up, of the kind help of friends, or the tolerance of landladies, and of the burden of debt which they had been obliged to assume. There were 50.9 possible weeks of employment during the year for this group of women. They actually worked an average of 44.9 weeks and were unemployed six weeks.

As shown in Table 19, illness is an important cause of the unemployment among women totally dependent on their earnings, 28.2 per cent of the time lost, representing an average of 1.7 weeks, being due to physical ailments. Table 20 shows that 78.5 per cent of these women reported time lost from this cause. It is a warrantable assumption that women entirely dependent on their earnings do not stay away from work for trivial indispositions. The tendency would be, as many women reported, to go to work when they did not feel physically able to do so.

Time lost through lay offs amounted to 32 per cent of the whole unemployment of women totally dependent. This came mostly in short periods, a week or two at a time, or a few days at a time, but in certain occupations, as has been noted, the periods were much longer, running into six or eight consecutive weeks. For the 42 totally dependent women who reported enforced lay offs the average number of weeks was 4.9.[1]

Fifteen per cent of the unemployment of totally dependent women was charged to "unpaid vacation." In the earlier discussion it has been stated that some of the unpaid vacation was doubtless enforced, how much it is impossible to say. The time lost by these women because they could not find any work was comparatively small, only 5.1 per cent being so reported. This would amount to an average of less than one-third of a week per person. The per cent of time lost due to illness in the family and to family responsibilities combined is less than in the group principally dependent upon earnings, because these women had fewer family ties, being solely dependent on themselves. In Table 21, which follows, the average annual amount earned during the year under consideration is shown for each class of employees, grouped according to degree of dependency, showing just what these women had on which to depend.

---

[1] See Table 49, page 69.

TABLE 21.—AVERAGE ANNUAL EARNINGS IN STORES AND IN OTHER INDUSTRIES OF 1,156 WOMEN EMPLOYED AS REGULARS ONLY, BY CLASSIFIED AMOUNTS EARNED IN STORES, AND BY DEGREE OF DEPENDENCY ON EARNINGS.

Classified amount of earnings in retail stores during year.	Women totally dependent on earnings.				Women principally dependent on earnings.			
	Employment in stores.		Additional employment in other industries.		Employment in stores.		Additional employment in other industries.	
	Number employed.	Average amount earned.	Number employed.	Average amount earned.	Number employed.	Average amount earned.	Number employed.	Average amount earned.
Under $50	2	$38.13	1	[1] $189.00	33	$34.47	[2] 17	$210.01
$50 and under $100	4	73.46	2	[3] 245.25	[2] 49	75.89	[2] 20	110.31
$100 and under $150	3	108.32	3	[4] 127.00	62	129.65	[2] 20	[5] 94.12
$150 and under $200	3	163.99	1	[4] 144.00	[2] 126	175.76	14	74.00
$200 and under $250	2	239.39	....	....	[2] 100	[6] 222.96	3	45.17
$250 and under $300	7	289.81	....	....	82	274.91	....	....
$300 and under $350	11	327.19	....	....	95	325.71	2	55.38
$350 and under $400	19	373.84	....	....	141	377.41	1	56.00
$400 and under $450	21	425.15	....	....	[2] 140	416.36	(7)	....
$450 and under $500	12	473.26	....	....	62	475.29	2	102.50
$500 and under $550	4	518.97	....	....	85	524.87	....	....
$550 and under $600	7	584.18	....	....	17	566.14	....	....
$600 and under $650	2	613.08	....	....	8	621.72	....	....
$650 and under $750	2	722.54	....	....	9	702.84	....	....
$750 and under $850	3	797.12	....	....	6	792.98	....	....
$850 and over	5	1,016.36	....	....	7	989.19	....	....
Total	107	423.49	7	[8] 172.07	[9] 972	311.49	[9] 79	[8] 116.48

Classified amount of earnings in retail stores during year.	Women partially dependent on earnings.				Women not dependent on earnings for necessaries.[10]		All women.			
	Employment in stores.		Additional employment in other industries.				Employment in stores.		Additional employment in other industries.	
	Number employed	Average amount earned.	Number employed	Average amount earned.	Number employed in stores.	Average amount earned.	Number employed	Average amount earned.	Number employed	Average amount earned.
Under $50	6	$34.01	....	....	5	$31.38	46	$34.23	[2] 18	[1] $208.85
$50 and under $100	7	75.73	1	$36.00	....	....	[2] 60	75.71	[2] 23	[11] 118.81
$100 and under $150	6	117.95	....	....	3	124.81	74	127.64	[2] 23	[5] 93.41
$150 and under $200	4	171.53	1	7.00	1	198.34	[2] 134	175.54	16	[6] 74.19
$200 and under $250	11	230.67	....	....	1	219.60	[2] 114	[6] 223.96	3	45.17
$250 and under $300	6	286.10	....	....	....	....	95	276.72	....	....
$300 and under $350	5	311.11	....	....	1	346.04	112	325.38	2	55.38
$350 and under $400	8	381.90	....	....	....	....	168	377.22	1	56.00
$400 and under $450	3	417.02	....	....	1	430.14	[2] 165	417.57	(7)	....
$450 and under $500	2	482.21	....	....	....	....	76	475.15	2	102.50
$500 and under $550	....	....	....	....	1	516.30	40	524.06	....	....
$550 and under $600	....	....	....	....	....	....	24	571.40	....	....
$600 and under $650	1	607.00	....	....	....	....	11	618.80	....	....
$650 and under $750	....	....	....	....	....	....	11	70[illegible].42	....	....
$750 and under $850	1	780.58	....	....	....	....	10	792.98	....	....
$850 and over	....	....	....	....	....	....	12	1,000.51	....	....
Total	60	243.26	2	21.50	13	172.44	[9] 1,152	[8] 316.77	[9] 88	[8] 118.74

---

[1] One woman received board in addition to earnings.

[2] Not including 1 woman whose exact earnings were not reported.

[3] One woman received room and board in addition to earnings; earnings for 9 weeks not reported by 1 woman.

[4] One woman received room and board in addition to earnings.

[5] One woman received board, and 1 woman received room and board in addition to earnings.

[6] One woman received board for 6 days in week in addition to earnings.

[7] One woman earned between $400 and $450, but the exact amount was not reported.

[8] See notes to details.

[9] Not including 4 women whose exact earnings were not reported.

[10] None of these women had additional employment in other industries.

[11] One woman received room and board in addition to earnings; earnings for 9 weeks not reported by 1 woman.

Of the 107 women totally dependent on their earnings, 51, or 47.7 per cent, had yearly incomes of under $400.[1] Of the totally dependent women who earned less than $200 in the stores, the majority (7 out of 12) earned additional amounts in other industries. These women would have preferred to work full time in the stores in almost every case could they have had the work, but, failing for one reason or another to secure work in stores, they were obliged to take what work they could get. The average yearly earnings in stores for this entire group were $423.49. The 7 who had worked also in other industries averaged $172.07 in those industries. Considering all earnings, the average weekly amount which these women would receive if their earnings were distributed equally over the 44.9 full weeks of actual work is $9.68, and for the 50.9 weeks of possible employment $8.54. These were all women of experience in the industry. The figures for the entire group are, of course, simply averages, but Table 21 shows also the actual number of women whose yearly earnings fell within specified wage groups. What the actual average was within these groups, and how far the average is fairly representative of prevailing conditions, may readily be seen.

As has been shown in Table 18, the majority of the women were found to belong in the group described as "principally" dependent on their own earnings, 84.4 per cent being so classified. For these women the average number of possible weeks of work was but 50, since in this group were some who began work for the first time after the beginning of the period studied and some who left industrial pursuits during the year. Twelve and four-tenths per cent of this time represented unemployment, so that the women had but 43.8 full weeks of work in that period. As usual, illness is the principal cause of unemployment, 31.2 per cent being so classified, and inability to get work is the second cause in importance, 17.1 per cent of all unemployment being due to that cause, though it is reported by but 16.3 per cent of the women in this group. It is probable that these are for the most part the younger girls just beginning work. It is increasingly difficult for girls from 14 to 16 to get work in Boston, owing to the recent legislation regulating their employment.

In spite of the low earnings of this group, only 8.1 per cent had supplemented their store earnings by work in other industries, and averaged $116.48 by such employment. The average amount which they earned in stores during the year is not large—$311.49. The average annual income from stores and other industries is $320.96. For each of the 50 possible wage-earning weeks in the year this would average $6.42, and for each of the 43.8 full weeks actually worked, $7.33.

---

[1] The average weekly earnings can not be computed from these data as some of the women were in industrial pursuits for a period less than 52 weeks.

The third group, which includes those only partially dependent on their earnings, has a considerably shorter period of possible weeks of employment, averaging but 43.9 weeks. During this period there were 35.9 full weeks of employment. As fully a third of the 60 women in this group were girls beginning work for the first time, for whom it is always difficult to find employment, and as there were also a number of girls and women whose dependency on their earnings was of so limited a degree that long vacations between jobs were not unusual, the percentage of unemployment is much higher than for either of the two previous groups. The causes classed in Table 19 as "other" account for 17.6 per cent of the unemployment, and the cause which is largely responsible for this per cent is that which has been designated as "work not desired." To illness is credited 25.7 per cent, and to inability to secure work 16.2 per cent, of the unemployment. After these causes, enforced lay off, unpaid vacation, and illness in the family follow in the order of importance. The women in this group show less time lost for "home responsibilities" than any other except the group totally dependent on earnings.

Of the women classed as only partially dependent on their earnings, only 2 reported additional work in other industries, and the amount so earned was not large enough to be of much importance. The average earnings in stores during the year for this group were $243.26. For these women, however, approximately 12 per cent of the year under consideration was time previous to their first entering industry.

The women who are not dependent on their earnings for necessaries represent but 1.1 per cent of the total number of women employed as regulars in the stores. They have no work save in stores, and obviously do not feel the need of keeping steadily at work, since they are reported as being unemployed for more than one-third of the possible weeks of employment and averaged but 25.7 full weeks of employment in the year. The important fact in this connection is that so few women fell within this group. There are too few to merit statistical analysis.

Degree of dependency of families on earnings of women.

Even after the unemployment of women in retail stores has been shown in relation to their earnings and to their degree of dependency on their earnings, there is still a further connection which must be shown in order to arrive at the full significance of unemployment. To what degree are families dependent on the earnings of the individual women scheduled? This is to some extent reflected in the degree of the girl's dependency on her earnings. To gather such information was not possible because of restricted funds. To determine the exact degree to which a family is dependent on the income from any given source, the total income from all sources must be accurately computed. It is, however, possible to show in how many instances these women, whose earnings and unemployment have been analyzed, furnished the entire support, the partial support, or no support at all for the family groups of which they were members.

It was a fairly simple matter to determine whether a woman was the entire support of a family, or whether the family did not depend at all on her earnings. But in cases where the woman was only in part the support of the family, the range of dependency was so great that it was decided to divide such families into two arbitrary groups: First, those families in which the standard of living would be lowered if the woman did not contribute something to the family income; second, those families which depended on the scheduled woman for regular contributions normally amounting to at least one-fourth of the entire income of the family.

In the table which follows the number of women having families coming under the different classifications are shown:

TABLE 22.—DEGREE OF DEPENDENCY OF FAMILY ON EARNINGS OF WOMEN EMPLOYED AS REGULARS ONLY.

Degree of family dependency on women's earnings.	Women reporting.	
	Number.	Per cent.
Totally dependent	29	2.5
Dependent on regular contribution of at least one-fourth of family income	433	37.4
Standard of living would be lowered if woman did not contribute	521	45.1
Not dependent for necessaries	146	12.6
No family	27	2.3
Total	1,156	100.0

One hundred and seventy-three women, or 14.9 per cent, reported no family demands on their earnings; 29 women, or 2.5 per cent of the entire 1,156, had families entirely dependent on their earnings; 521, or 45.1 per cent, had families who needed and had the financial assistance of the worker from time to time during the year; 433, or 37.4 per cent, were depended upon as regular contributors to the family support to the extent of at least one-fourth of the family income. Of the 29 women who were the sole support of their families, 23 had but 1 person besides themselves in the family,[1] 4 had 2, and 2 had 3 in the family. Twenty, or more than two-thirds of these women, reported average earnings of less than $9.

Four hundred and thirty-three women contributed at least one-fourth to the family budget. This is not significant, however, unless it is also known how much the girl's contribution was and how many there were in the family. The table which follows gives this information. Without exception this group of women added their entire earnings to the family budget, getting from the common fund their own necessaries. The weekly earnings were computed by dividing the total amount earned in stores by the number of weeks during which there was some employment in stores during the year, making no deduction for days lost during such weeks.

---

[1] See Table 23, p. 42.

TABLE 23.—WOMEN HAVING FAMILIES REGULARLY DEPENDENT ON THEIR EARNINGS FOR AT LEAST ONE-FOURTH OF FAMILY INCOME AND WOMEN HAVING FAMILIES TOTALLY DEPENDENT, BY WEEKLY EARNINGS IN STORES AND BY NUMBER OF PERSONS IN THE FAMILY BESIDES THEMSELVES.

Average actual weekly earnings in stores.	Women having families of specified number of persons besides themselves regularly dependent for at least one-fourth of family income.												Women having families of specified number of persons besides themselves totally dependent.			
	1 person.	2 persons.	3 persons.	4 persons.	5 persons.	6 persons.	7 persons.	8 persons.	9 persons.	10 or more persons.	Total.	Average number of persons.	1 person.	2 persons.	3 persons.	Total.
Under $4	1	7	10	5	2	2	5	3	.....	1	36	4.3	.....	.....	.....	.....
$4 to $4.99	[1] 1	5	10	8	[1] 6	5	[2] 8	4	4	2	[3] 53	5.2	.....	.....	.....	.....
$5 to $5.99	3	4	[4] 14	8	[5] 5	1	3	2	1	1	[6] 42	4.1	2	1	.....	3
$6 to $6.99	5	9	16	11	4	3	2	2	1	[7] 1	[7] 54	3.7	3	.....	.....	3
$7 to $7.99	17	20	27	[8] 21	11	3	5	3	2	.....	[8] 109	3.4	4	1	1	6
$8 to $8.99	2	16	10	6	4	3	3	.....	1	1	46	3.6	5	2	1	8
$9 to $9.99	5	12	[9] 11	4	2	4	.....	1	.....	.....	[9] 39	3.1	2	.....	.....	2
$10 to $10.99	3	7	7	2	.....	.....	.....	1	.....	.....	20	2.7	.....	.....	.....	.....
$11 to $11.99	2	3	4	2	.....	.....	.....	.....	.....	.....	11	2.5	3	.....	.....	3
$12 and over	5	4	4	3	2	.....	1	.....	.....	.....	19	2.9	4	.....	.....	4
Total	44	87	113	70	36	21	27	16	9	6	[10] 429	3.7	23	4	2	29

[1] Including 1 whose earnings for more than half of the year averaged $7.01.
[2] Including 1 whose earnings for more than half of the year averaged $10.
[3] Including 2 whose earnings for more than half of the year averaged $7.01 and $10, respectively.
[4] Including 1 who worked in another industry where her average earnings were $8, and 1 who worked in 2 retail stores, data for one of them incomplete.
[5] Including 1 whose earnings for more than half of the year averaged $7.98.
[6] Including 1 whose average earnings in another industry were $8; 1 who worked in 2 retail stores, data for one of them incomplete; and 1 whose earnings for more than half of the year averaged $7.98.
[7] Including 1 whose earnings for more than half of the year averaged $9.50.
[8] Including 1 whose earnings for half of the year averaged $12.
[9] Including 1 woman who worked in 2 retail stores, data for one of them incomplete.
[10] Not including 4 women, number in family not reported.

The details given in the above table indicate the maximum weekly amounts these families regularly dependent on the women for at least one-fourth of their income would have for sustenance. While the woman's contribution is at least one-fourth, it may be as much as one-half or three-fourths of the entire income, so while the families did not have as an average more than four times the amount of her earnings, there were many cases where they had less. As a matter of fact, the girl's contribution in a great many instances exceeded one-fourth of the total income. About twice as many women reported earnings of $7 to $7.99 as reported any other amount, and more reported three persons in family besides themselves than reported any other number. It is interesting to note that with one or two slight exceptions the average number in the family steadily decreased as the specified earnings increased. While the girls earning less than $4 and those earning $4 to $4.99 furnished one-fourth or more of the income for families averaging, in addition to themselves, 4.3 persons and 5.2 persons, respectively, those earning $10 or over had in their families an average of but 2.6 persons besides themselves. It is apparent from this table that the earnings of the individual can not be decreased or increased without affecting in a very material way not only the worker herself, but others dependent upon her.

IMPORTANCE OF SICKNESS AS A CAUSE OF UNEMPLOYMENT.

Sickness has been shown throughout to be a very important cause of unemployment of regular employees. The subject assumes sufficient importance to be discussed in relation to age groups. In the foregoing tables no absence, whether due to sickness or other causes, was included as unemployment if it was paid for by the firm. In the following table all illness, whether or not paid for, is included:

TABLE 24.—SICKNESS REPORTED BY REGULAR EMPLOYEES FOR THE YEAR ENDING JULY 31, 1914, BY AGE GROUPS.

[This table includes time lost on account of sickness whether or not paid for. Women with absence of less than 6 days during the period of possible employment were excluded.]

Age group.	Total number scheduled.	Women reporting sickness.			Days of sickness per person scheduled.	Weeks of possible employment.
		Number.	Per cent.	Days of sickness per woman reporting.		
Under 16	69	45	65.2	8.7	5.7	36.7
16 and under 18	201	154	76.6	12.7	9.8	46.8
18 and under 21	234	199	85.0	12.5	10.6	51.2
21 and under 25	224	180	80.4	15.3	12.3	51.1
25 and under 35	263	209	79.5	19.6	15.5	51.3
35 and under 45	110	85	77.3	16.1	12.4	51.6
45 and under 55	41	28	68.3	24.3	16.6	51.7
55 and under 65	12	10	83.3	9.9	8.3	52.0
Age not reported	2	1	50.0	4.0	2.0	52.0
Total	1,156	911	78.8	15.2	12.0	49.6

The above table shows that out of the total of 1,156 women there were 911, or 78.8 per cent, who reported absence from duty because of sickness. Even more impressive is the average of 2.5 weeks' duration of such sickness. While this seems a large amount, there are no extensive statistics of other industries in this country available for comparison, so that it can not be determined whether women in retail stores show a greater or less amount of illness than women in other industries, or even whether the amount shown is abnormal. Whether it is or is not, however, does not alter the fact that in this industry at least it is such an important factor in the industrial life of the women that there would seem to be an imperative necessity for providing against it. Table 24 shows that the per cent reporting and the average number of days per person vary with the different age groups, the amount gradually increasing with the ages up to 35, then falling off, but increasing again in the group including those 45 and under 55 years of age, after which it falls off again. The age group which has the largest per cent reporting illness is the group 18 and under 21, while the greatest number of days of illness per person is reported in the group 45 and under 55 years of age.

The number who reported insurance against illness was 525, or 45.4 per cent of the total number. Ninety-nine per cent of these were members of store benefit associations; 10 women, including some who belonged to store benefit associations, belonged to some order or lodge, and two to the retail dry goods clerks' association. Of the 525 women who belonged to associations, only 54 reported any benefits received. The average number of weeks for which they received such benefit was 4.3 and the average amount received per person was $18. The average rate of dues paid was 8 cents a week.

The prevailing impression gathered from conversations with the women and their families was that the younger and low-paid girls begrudge even 5 cents a week dues and do not recognize the value of protection provided by benefit organizations. Even if they belonged they very frequently reported that when they were sick they "didn't bother about it, it was so much trouble." In practically all store benefit associations no benefit is paid for less than a week and a doctor's certificate of illness must be presented. This involves calling a doctor, and many women, even if obliged to stay out a week, did not want to call a doctor, but preferred to let the benefit go. Girls who have been ill and have once drawn their benefits do not neglect them, but a great many women, until they have actually experienced the security afforded by receiving pay while incapacitated, do not value the protection.

Reverting to all the causes of unemployment as analyzed in the light of the personal and family relations, the conviction becomes increasingly strong that unemployment among women is in large measure due to influences which are peculiar to a woman's life. The large per cent of time lost due to illness, the time lost due to illness of others in the family because the woman must care for the other members of her family as well as for herself, the other home responsibilities which belong to the woman, since she is the force that holds the home together, the unpaid vacation, since she must have time to restore some of the vital energy on which there are so many calls; these are all causes that have a direct relation to her womanhood and the question naturally arises as to how far the obligations which create unemployment should be considered in the matter of wages paid to women.

WOMEN HAVING BOTH REGULAR AND EXTRA WORK.

The evidence of this investigation, as well as that of previous ones,[1] points to the conclusion that women who, during any given period under study, are found to have held several different positions either in one industry or in different industries, are the women who have not, for one reason or another, succeeded in commanding average wages. The reason may be their extreme youth or their extreme age; it may be some physical handicap, or it may be that they have not been trained to habits of industry. It may be that through lack of opportunity their real capabilities have failed to develop; but, one way or another, they are, in general, not able to come up to the standard set by the women whose records show continued work in one industry. So one may expect to find among the women whose records showed employment both as extras and as regulars in retail stores or in other industries, less steady employment, lower rates of pay, lower earnings, and a higher per cent of unemployment. This should not be taken to mean that all women who show both regular and extra work are women having no steady work or women earning low wages. There are, of course, some women in this group who have regular positions at more than the average rate of pay, who may have also had extra work during the year, but these are the exception rather than the rule.

EXTENT OF EMPLOYMENT AND UNEMPLOYMENT.

Of the 346 women in this group, 193, or 55.8 per cent, had both regular and extra work in stores, and 153, or 44.2 per cent, had regular work in other industries and extra work only in stores. These 153 were not, however, the only women out of the 346 to report work in other industries, for 62, or nearly one-third, of the women who had both regular and extra work in stores also had regular work in other industries. Altogether 62.1 per cent of the women had some regular work in industries other than retail stores. All sorts of work were represented in the "other industries"—factory work, domestic work, both in private families and in hotels, and restaurant work. Practically all of the work was that usually described as unskilled. The amount of employment which these women had falls considerably below that of the regulars, especially when one considers that for many of the weeks counted as weeks with employment, the only employment was extra work which may have been for but one or two days during the week.

---

[1] See Bulletin of U. S. Bureau of Labor Statistics, No. 160, Hours, Earnings, and Conditions of Labor of Women in Indiana Mercantile Establishments and Garment Factories, pp. 51 and 86.

The table following shows for the year ending July 31, 1914, the average number of weeks in which there was some employment in stores and in other industries, and the weeks without employment:

TABLE 25.—AVERAGE WEEKS OF EMPLOYMENT IN RETAIL STORES AS REGULARS AND AS EXTRAS, AND IN OTHER INDUSTRIES AS REGULARS, OF WOMEN HAVING BOTH REGULAR AND EXTRA WORK.

[All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment.]

Classification of employment.	Women reporting.		Average number of weeks in which there was employment as—					Average number of weeks in which there was no employment.
				Extras in retail stores.				
	Number.	Per cent.	Regulars in retail stores.	Total weeks.	Weeks in which extra overlapped regular work.	Weeks in which only extra work was done.	Regulars in other industries.	
As regulars in retail stores only	131	37.9	25.5	9.8	2.2	7.6	....	18.9
As regulars in retail stores and other industries	62	17.9	16.5	4.8	.5	4.3	16.1	15.1
As regulars in other industries only	153	44.2	....	8.8	3.2	5.6	26.7	19.7
Total	346	100.0	12.6	8.5	2.4	6.1	14.7	18.6

Allowing for the 2.4 weeks in which extra work overlapped the regular, the average number of weeks with some employment for the entire group was but 33.4, which represents only about 65 per cent of the year. Six and one-tenth weeks, a little over one-fifth of this time, were weeks with extra work only, so that sifted down the period of employment as regulars in all industries for the 346 women who had both regular and extra work, covered only about half the year, or an average of 27.3 weeks. The period without any employment averaged 18.6 weeks, or about 35 per cent of the year. This includes the time before the first employment and the time after leaving industrial pursuits—an average of five weeks for each of the 346 women in this group—as well as time voluntarily unemployed. While the average number of weeks with employment only as extras has been given as 6.1, that figure in itself has no significance until it is known how many days of work it represents. A woman might have 8 weeks with extra work and have worked only 8 evenings during that time, or she might have worked on 6 days a week for all 8 weeks. An analysis, therefore, was made of the weeks with extra work to find out how much actual work they represented. For all the weeks with extra employment reported by the 346 women, the average number of days on which such employment occurred was but 2⅔ per week. Some of the women in this group had their regular

work in stores and some had theirs in other industries, while others had regular work in both stores and other industries. Table 25 shows the average number of weeks in which there was some employment in accordance with such classifications. All of the women had extra work in stores. There seems to be practically no difference in the amount of regular work of the women whose regular employment was confined to stores and that of women whose regular work was confined to other industries, one having 25.5 weeks, the other having 26.7 weeks with regular work. The women working in both stores and other industries as regulars and in stores as extras averaged a little more employment during the year, having 32.6 weeks with employment as regulars and 4.3 weeks in which the employment was only as extras.

The women who are reported here as having both regular and extra work show a much greater tendency to shift from establishment to establishment and from industry to industry than do the women who were employed as regulars only, but the shifting is not as great as one might expect. This is brought out in the table which follows, showing the number and per cent employed in one or more stores and in one or more industries:

TABLE 26.—NUMBER AND PER CENT OF WOMEN REPORTING REGULAR OR EXTRA WORK IN ONE OR MORE RETAIL STORES AND IN ONE OR MORE INDUSTRIES.

Employment during year in—	Women reporting.		Employment during year in—	Women reporting.	
	Number.	Per cent.		Number.	Per cent.
One retail store	171	49.4	One industry	131	37.8
Two retail stores	110	31.8	Two industries	173	50.0
Three retail stores	47	13.6	Three industries	37	10.7
Four retail stores	13	3.8	Four industries	4	1.2
Five or more retail stores	5	1.4	Five or more industries	1	.3
Total	346	100.0	Total	346	100.0

Of the 346 women, 171, or practically half, had been employed in one retail store only, as compared with 90.2 per cent of the regulars, and while 8.3 per cent of the regulars had work in two stores and 1.5 per cent in three different stores, 31.8 per cent of those having both regular and extra work had been employed in two stores, 13.6 per cent in three stores, 3.8 per cent in four, and 1.4 per cent in five or more stores. In the matter of industries they show the same shifting, yet 37.8 per cent had been employed in but one industry, 50 per cent had had employment in two industries, 10.7 per cent in three industries, and there were 4 women reporting employment in four industries and 1 in five industries.

In this connection and in connection with the statement made earlier that these women who report both extra and regular work

The table following shows for the year ending July 31, 1914, the average number of weeks in which there was some employment in stores and in other industries, and the weeks without employment:

TABLE 25.—AVERAGE WEEKS OF EMPLOYMENT IN RETAIL STORES AS REGULARS AND AS EXTRAS, AND IN OTHER INDUSTRIES AS REGULARS, OF WOMEN HAVING BOTH REGULAR AND EXTRA WORK.

[All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment.]

Classification of employment.	Women reporting.		Average number of weeks in which there was employment as—					Average number of weeks in which there was no employment.
				Extras in retail stores.				
	Number.	Per cent.	Regulars in retail stores.	Total weeks.	Weeks in which extra overlapped regular work.	Weeks in which only extra work was done.	Regulars in other industries.	
As regulars in retail stores only	131	37.9	25.5	9.8	2.2	7.6	....	18.9
As regulars in retail stores and other industries	62	17.9	16.5	4.8	.5	4.3	16.1	15.1
As regulars in other industries only	153	44.2	....	8.8	3.2	5.6	26.7	19.7
Total	346	100.0	12.6	8.5	2.4	6.1	14.7	18.6

Allowing for the 2.4 weeks in which extra work overlapped the regular, the average number of weeks with some employment for the entire group was but 33.4, which represents only about 65 per cent of the year. Six and one-tenth weeks, a little over one-fifth of this time, were weeks with extra work only, so that sifted down the period of employment as regulars in all industries for the 346 women who had both regular and extra work, covered only about half the year, or an average of 27.3 weeks. The period without any employment averaged 18.6 weeks, or about 35 per cent of the year. This includes the time before the first employment and the time after leaving industrial pursuits—an average of five weeks for each of the 346 women in this group—as well as time voluntarily unemployed. While the average number of weeks with employment only as extras has been given as 6.1, that figure in itself has no significance until it is known how many days of work it represents. A woman might have 8 weeks with extra work and have worked only 8 evenings during that time, or she might have worked on 6 days a week for all 8 weeks. An analysis, therefore, was made of the weeks with extra work to find out how much actual work they represented. For all the weeks with extra employment reported by the 346 women, the average number of days on which such employment occurred was but 2⅔ per week. Some of the women in this group had their regular

work in stores and some had theirs in other industries, while others had regular work in both stores and other industries. Table 25 shows the average number of weeks in which there was some employment in accordance with such classifications. All of the women had extra work in stores. There seems to be practically no difference in the amount of regular work of the women whose regular employment was confined to stores and that of women whose regular work was confined to other industries, one having 25.5 weeks, the other having 26.7 weeks with regular work. The women working in both stores and other industries as regulars and in stores as extras averaged a little more employment during the year, having 32.6 weeks with employment as regulars and 4.3 weeks in which the employment was only as extras.

The women who are reported here as having both regular and extra work show a much greater tendency to shift from establishment to establishment and from industry to industry than do the women who were employed as regulars only, but the shifting is not as great as one might expect. This is brought out in the table which follows, showing the number and per cent employed in one or more stores and in one or more industries:

TABLE 26.—NUMBER AND PER CENT OF WOMEN REPORTING REGULAR OR EXTRA WORK IN ONE OR MORE RETAIL STORES AND IN ONE OR MORE INDUSTRIES.

Employment during year in—	Women reporting.		Employment during year in—	Women reporting.	
	Number.	Per cent.		Number.	Per cent.
One retail store	171	49.4	One industry	131	37.8
Two retail stores	110	31.8	Two industries	173	50.0
Three retail stores	47	13.6	Three industries	37	10.7
Four retail stores	13	3.8	Four industries	4	1.2
Five or more retail stores	5	1.4	Five or more industries	1	.3
Total	346	100.0	Total	346	100.0

Of the 346 women, 171, or practically half, had been employed in one retail store only, as compared with 90.2 per cent of the regulars, and while 8.3 per cent of the regulars had work in two stores and 1.5 per cent in three different stores, 31.8 per cent of those having both regular and extra work had been employed in two stores, 13.6 per cent in three stores, 3.8 per cent in four, and 1.4 per cent in five or more stores. In the matter of industries they show the same shifting, yet 37.8 per cent had been employed in but one industry, 50 per cent had had employment in two industries, 10.7 per cent in three industries, and there were 4 women reporting employment in four industries and 1 in five industries.

In this connection and in connection with the statement made earlier that those women who report both extra and regular work seem to be women who are earning less than average wages, it is interesting to know that 38, or nearly 11 per cent, of these women reported both extra and regular employment for the same time, that is, while they were regularly employed in one establishment they were also doing extra work in another. The reason generally assigned for this was that they could not earn enough by their regular work to meet their needs and had to supplement it with other work. Most of them (28) were women whose extra work was evening work in stores that kept open one or two evenings during the week and needed extra help for that time. Of these 10 had regular work in department stores which closed evenings, 11 were regularly employed in office work in business houses, and the other 7 were scattered among various occupations. In addition to the 28, 5 women who were employed as regulars in factories which closed at noon Saturdays, went directly from their factory work to spend the afternoon and evening as extra saleswomen in a store keeping open Saturday nights. The fact that the average number of weeks during which they were carrying on both kinds of work was 23.3 shows that it was regarded not as an occasional but as a permanent arrangement. The other five women who had regular and extra work at the same time were women whose extra work was in department stores open only in the daytime, but whose regular work was such that it permitted of occasional time off, such as dressmaking at home, running a lodging house, church work, and usher in a theater.

It hardly seems necessary to say that a woman who has worked a a full week's schedule in a factory should not be obliged to add seven or eight hours of work attending to the extra rush of a Saturday business in a retail store, or that a woman who has worked all day in an office or in a department store should not be obliged to go to another store for evening work in order to earn enough to meet her weekly expenses.

EARNINGS AS REGULARS AND AS EXTRAS AND PERIODS OF EMPLOYMENT.

The preceding figures show that the women having regular and extra work have less steady employment than the regulars. The following table shows the average full-time weekly earnings for regular work in stores and in other industries of women having both regular and extra employment:

TABLE 27.—AVERAGE FULL-TIME WEEKLY EARNINGS FOR REGULAR WORK IN STORES AND IN OTHER INDUSTRIES OF WOMEN EMPLOYED BOTH AS REGULARS AND EXTRAS, BY OCCUPATIONS AND BY CLASSIFIED AVERAGE WEEKLY EARNINGS.

Classified average weekly earnings in stores.	In stores.									In other industries.		
	Saleswomen.			All other occupations.			Total.			All women.		
	Number.	Per cent.	Average full-time weekly earnings.	Number.	Per cent.	Average full-time weekly earnings.	Number.	Per cent.	Average full-time weekly earnings.	Number.	Per cent.	Average full-time weekly earnings.
Under $4	2	1.8	$4.00	21	28.8	$3.76	23	12.3	$3.77	23	12.4	[1] $3.59
$4 to $4.99	9	7.9	5.15	23	31.5	4.49	32	17.1	4.62	31	16.8	[2] 4.80
$5 to $5.99	17	14.9	5.76	10	13.7	5.63	27	14.4	5.72	45	24.3	[3] 5.56
$6 to $6.99	19	16.7	6.84	8	10.9	6.55	27	14.4	6.75	29	15.8	[4] 6.53
$7 to $7 99	42	36.8	7.87	5	6.9	7.72	47	25.2	7.85	18	9.7	[5] 7.75
$8 to $8.99	15	13.2	8.58	3	4.1	8.00	18	9.6	8.51	16	8.6	8.42
$9 to $9.99	7	6.1	9.81	3	4.1	9.14	10	5.4	9.65	4	2.2	9.21
$10 to $11.99	3	2.6	11.87	......	......	......	3	1.6	11.87	11	5.9	10.75
$12 and over	......	......	......	......	......	......	......	......	......	8	4.3	15.44
Total	114	100.0	7.67	73	100.0	5.44	[6] 187	100.0	6.90	[7] 185	100.0	[8] 7.05

[1] One woman also received room and board 3 weeks.
[2] One woman also received board 6 weeks, and also received room, board, and laundry 24 weeks.
[3] One woman also received board 10 weeks and one 8 weeks; one received room and board 10 weeks, and one 2 weeks.
[4] One woman also received room and board 3 weeks; one received room, board, and laundry 25 weeks; another 11 weeks.
[5] One woman also received board 45 weeks, and one received room and board 6 weeks, one 9 weeks, and one 18 weeks.
[6] Not including 6 women whose full-time earnings were not reported.
[7] Not including 30 women whose full-time earnings were not reported.
[8] One woman also received board 6 weeks, one 10 weeks, one 8 weeks, and one 45 weeks; two received room and board 3 weeks, one 10 weeks, one 2 weeks, one 8 weeks, one 9 weeks, and one 18 weeks, one received room, board, and laundry 24 weeks, one 25 weeks, and one 11 weeks.

The average full-time weekly earnings for all regular work in stores, reported by 187 of the 193 women having both regular and extra employment in stores, were $6.90. The full-time weekly earnings in stores for the saleswomen were $7.67 for the regulars and extras, as compared with $8.63 for the regulars. The other occupations were represented by too few women to make separate groupings desirable.

In their work in other industries about the same level is maintained, though the average full-time weekly earnings are a little higher. The per cent of women earning less than $7 as regulars and extras in the stores is 58.2 and as regulars and extras in the other industries 69.3, while the per cent earning less than $9 is 93 in the stores and 87.6 in the other industries. The average full-time weekly earnings reported by 185 women in other industries were $7.05.

As was stated in the preliminary discussion of "extras" a girl might be taken on for day work, evening work, Saturday, or whatever occasion the store employing her had for extra help. After interviewing a few of the "extras" it was found necessary to specify for just what period the "extra" was employed, so that the amount of employment might be accurately judged and the rate of pay be shown in relation to the amount of service rendered. The large department stores and the specialty stores usually employed extras for the regular day only. As these stores employed the largest number of extras, the normal day (that is, the regular full-time day) is the period most commonly reported. Some of the stores in the more outlying parts of the city, which kept open evenings, employed extra girls for all day Saturday till the closing hour in the evening. While no store could require more than 10 hours' work of a woman, the schedule might be so arranged that the time from first coming on duty to the time of leaving was much longer than a normal day. This has been called a "long day." These outlying stores and some of the smaller down-town stores also employed extras for evenings, for Saturday afternoons, and sometimes for afternoons and evenings. Frequently school girls worked as extras from the close of school through the evening. The 5 and 10 cent stores all employed extras on Saturdays (a "long day") and occasionally for other days. Of course for the short time just preceding Christmas "extras" were needed every day. Whenever an extra worked six consecutive days it was reported as a "full week."

A study of the following table shows that the normal day, the evening, and the full week were the periods most often reported, and that the evening work was the only extra work that seemed to afford continuous employment, the average number of evenings employed being 29.1, or more than twice the average for any other period. The explanation for this lies in the fact that this group included a number of women who had employment as extras in the evening one, two, or three days a week, this occupation being in addition to day work as regulars in other establishments or industries. Aside from this evening work, the average periods employed were short, ranging from 9 to 13 days, while the "full weeks" averaged 3.1 per woman. Considering all days or part days with extra work, the average number per person was 22½. These, as has already been stated, were distributed over 8½ weeks, so that the 8½ weeks with extra work contained really but 2¾ days with extra work per week.

TABLE 28.—AMOUNT OF EXTRA EMPLOYMENT AND RATES OF PAY THEREFOR OF WOMEN EMPLOYED BOTH AS REGULARS AND EXTRAS, BY OCCUPATIONS.

[Occupations shown in this table refer to work in stores only; occupations while employed in other industries are not given.]

Occupation.	Normal day.			Long day.			Evening.			Half day.		
	Number reporting.	Average number of days worked.	Average rate of pay.	Number reporting.	Average number of days worked.	Average rate of pay.	Number reporting.	Average number of evenings worked.	Average rate of pay.	Number reporting.	Average number of half days worked.	Average rate of pay.
Saleswomen	198	11.9	$1.33	16	12.9	$1.29	38	29.3	$0.87	4	13.0	$0.83
Cashiers, examiners, bundle wrappers, etc.	82	7.4	.76									
Office employees	5	7.6	1.37				2	24.0	.75			
All other occupations	8	7.6	1.25									
Total	293	10.5	1.17	16	12.9	1.29	40	29.1	.86	4	13.0	.83

Occupation.	Afternoon and evening.			Full week.			Total number reporting.	Average number of weeks with some employment as an extra.	Average number of days with some employment as an extra.	Average amount earned during year.
	Number reporting.	Average number of afternoons and evenings worked.	Average rate of pay.	Number reporting.	Average number of weeks worked.	Average rate of pay.				
Saleswomen	17	9.0	$1.07	95	3.3	$7.50	242	10.2	23.9	$29.50
Cashiers, examiners, bundle wrappers, etc.				55	2.9	4.39	88	3.9	18.8	13.01
Office employees	1	20.0	1.04	3	3.7	8.00	7	13.1	24.6	29.26
All other occupations				7	2.6	8.50	9	4.0	17.7	19.32
Total	18	9.6	1.07	160	3.1	6.48	346	8.5	22.5	25.04

The average weekly rate as extras of the 160 women reporting full weeks of extra work was $6.48, the weekly rates for extra work ranging from $4.39 for cashiers, examiners, etc., to $8 for office employees. In the case of two women employed in alteration departments, who are included in the table under "All other occupations," the average rate of pay for full weeks of extra work was $11.50. On the whole the extra rates seem a trifle higher for most occupations than the rates for these same women when working as regulars.

and the average number of days per person vary with the different age groups, the amount gradually increasing with the ages up to 35, then falling off, but increasing again in the group including those 45 and under 55 years of age, after which it falls off again. The age group which has the largest per cent reporting illness is the group 18 and under 21, while the greatest number of days of illness per person is reported in the group 45 and under 55 years of age.

The number who reported insurance against illness was 525, or 45.4 per cent of the total number. Ninety-nine per cent of these were members of store benefit associations; 10 women, including some who belonged to store benefit associations, belonged to some order or lodge, and two to the retail dry goods clerks' association. Of the 525 women who belonged to associations, only 54 reported any benefits received. The average number of weeks for which they received such benefit was 4.3 and the average amount received per person was $18. The average rate of dues paid was 8 cents a week.

The prevailing impression gathered from conversations with the women and their families was that the younger and low-paid girls begrudge even 5 cents a week dues and do not recognize the value of protection provided by benefit organizations. Even if they belonged they very frequently reported that when they were sick they "didn't bother about it, it was so much trouble." In practically all store benefit associations no benefit is paid for less than a week and a doctor's certificate of illness must be presented. This involves calling a doctor, and many women, even if obliged to stay out a week, did not want to call a doctor, but preferred to let the benefit go. Girls who have been ill and have once drawn their benefits do not neglect them, but a great many women, until they have actually experienced the security afforded by receiving pay while incapacitated, do not value the protection.

Reverting to all the causes of unemployment as analyzed in the light of the personal and family relations, the conviction becomes increasingly strong that unemployment among women is in large measure due to influences which are peculiar to a woman's life. The large per cent of time lost due to illness, the time lost due to illness of others in the family because the woman must care for the other members of her family as well as for herself, the other home responsibilities which belong to the woman, since she is the force that holds the home together, the unpaid vacation, since she must have time to restore some of the vital energy on which there are so many calls; these are all causes that have a direct relation to her womanhood and the question naturally arises as to how far the obligations which create unemployment should be considered in the matter of wages paid to women.

WOMEN HAVING BOTH REGULAR AND EXTRA WORK.

The evidence of this investigation, as well as that of previous ones,[1] points to the conclusion that women who, during any given period under study, are found to have held several different positions either in one industry or in different industries, are the women who have not, for one reason or another, succeeded in commanding average wages. The reason may be their extreme youth or their extreme age; it may be some physical handicap, or it may be that they have not been trained to habits of industry. It may be that through lack of opportunity their real capabilities have failed to develop; but, one way or another, they are, in general, not able to come up to the standard set by the women whose records show continued work in one industry. So one may expect to find among the women whose records showed employment both as extras and as regulars in retail stores or in other industries, less steady employment, lower rates of pay, lower earnings, and a higher per cent of unemployment. This should not be taken to mean that all women who show both regular and extra work are women having no steady work or women earning low wages. There are, of course, some women in this group who have regular positions at more than the average rate of pay, who may have also had extra work during the year, but these are the exception rather than the rule.

EXTENT OF EMPLOYMENT AND UNEMPLOYMENT.

Of the 346 women in this group, 193, or 55.8 per cent, had both regular and extra work in stores, and 153, or 44.2 per cent, had regular work in other industries and extra work only in stores. These 153 were not, however, the only women out of the 346 to report work in other industries, for 62, or nearly one-third, of the women who had both regular and extra work in stores also had regular work in other industries. Altogether 62.1 per cent of the women had some regular work in industries other than retail stores. All sorts of work were represented in the "other industries"—factory work, domestic work, both in private families and in hotels, and restaurant work. Practically all of the work was that usually described as unskilled. The amount of employment which these women had falls considerably below that of the regulars, especially when one considers that for many of the weeks counted as weeks with employment, the only employment was extra work which may have been for but one or two days during the week.

---

[1] See Bulletin of U. S. Bureau of Labor Statistics, No. 160, Hours, Earnings, and Conditions of Labor of Women in Indiana Mercantile Establishments and Garment Factories, pp. 51 and 86.

The table following shows for the year ending July 31, 1914, the average number of weeks in which there was some employment in stores and in other industries, and the weeks without employment:

TABLE 25.—AVERAGE WEEKS OF EMPLOYMENT IN RETAIL STORES AS REGULARS AND AS EXTRAS, AND IN OTHER INDUSTRIES AS REGULARS, OF WOMEN HAVING BOTH REGULAR AND EXTRA WORK.

[All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment.]

Classification of employment.	Women reporting.		Average number of weeks in which there was employment as—					Average number of weeks in which there was no employment.
				Extras in retail stores.				
	Number.	Per cent.	Regulars in retail stores.	Total weeks.	Weeks in which extra overlapped regular work.	Weeks in which only extra work was done.	Regulars in other industries.	
As regulars in retail stores only	131	37.9	25.5	9.8	2.2	7.6	......	18.9
As regulars in retail stores and other industries.	62	17.9	16.5	4.8	.5	4.3	16.1	15.1
As regulars in other industries only	153	44.2	....	8.8	3.2	5.6	26.7	19.7
Total	346	100.0	12.6	8.5	2.4	6.1	14.7	18.6

Allowing for the 2.4 weeks in which extra work overlapped the regular, the average number of weeks with some employment for the entire group was but 33.4, which represents only about 65 per cent of the year. Six and one-tenth weeks, a little over one-fifth of this time, were weeks with extra work only, so that sifted down the period of employment as regulars in all industries for the 346 women who had both regular and extra work, covered only about half the year, or an average of 27.3 weeks. The period without any employment averaged 18.6 weeks, or about 35 per cent of the year. This includes the time before the first employment and the time after leaving industrial pursuits—an average of five weeks for each of the 346 women in this group—as well as time voluntarily unemployed. While the average number of weeks with employment only as extras has been given as 6.1, that figure in itself has no significance until it is known how many days of work it represents. A woman might have 8 weeks with extra work and have worked only 8 evenings during that time, or she might have worked on 6 days a week for all 8 weeks. An analysis, therefore, was made of the weeks with extra work to find out how much actual work they represented. For all the weeks with extra employment reported by the 346 women, the average number of days on which such employment occurred was but 2⅔ per week. Some of the women in this group had their regular

work in stores and some had theirs in other industries, while others had regular work in both stores and other industries. Table 25 shows the average number of weeks in which there was some employment in accordance with such classifications. All of the women had extra work in stores. There seems to be practically no difference in the amount of regular work of the women whose regular employment was confined to stores and that of women whose regular work was confined to other industries, one having 25.5 weeks, the other having 26.7 weeks with regular work. The women working in both stores and other industries as regulars and in stores as extras averaged a little more employment during the year, having 32.6 weeks with employment as regulars and 4.3 weeks in which the employment was only as extras.

The women who are reported here as having both regular and extra work show a much greater tendency to shift from establishment to establishment and from industry to industry than do the women who were employed as regulars only, but the shifting is not as great as one might expect. This is brought out in the table which follows, showing the number and per cent employed in one or more stores and in one or more industries:

TABLE 26.—NUMBER AND PER CENT OF WOMEN REPORTING REGULAR OR EXTRA WORK IN ONE OR MORE RETAIL STORES AND IN ONE OR MORE INDUSTRIES.

Employment during year in—	Women reporting.		Employment during year in—	Women reporting.	
	Number.	Per cent.		Number.	Per cent.
One retail store	171	49.4	One industry	131	37.8
Two retail stores	110	31.8	Two industries	173	50.0
Three retail stores	47	13.6	Three industries	37	10.7
Four retail stores	13	3.8	Four industries	4	1.2
Five or more retail stores	5	1.4	Five or more industries	1	.3
Total	346	100.0	Total	346	100.0

Of the 346 women, 171, or practically half, had been employed in one retail store only, as compared with 90.2 per cent of the regulars, and while 8.3 per cent of the regulars had work in two stores and 1.5 per cent in three different stores, 31.8 per cent of those having both regular and extra work had been employed in two stores, 13.6 per cent in three stores, 3.8 per cent in four, and 1.4 per cent in five or more stores. In the matter of industries they show the same shifting, yet 37.8 per cent had been employed in but one industry, 50 per cent had had employment in two industries, 10.7 per cent in three industries, and there were 4 women reporting employment in four industries and 1 in five industries.

In this connection and in connection with the statement made earlier that those women who report both extra and regular work

The average yearly amount earned by this group was $283.62. Of this, 45.2 per cent was earned as regulars in stores, 11.1 per cent as extras in stores, and 43.7 per cent as regulars in other industries. Since their possible weeks of work were but 47.1, the average weekly amount earned in that time would be about $6.

The per cent of the regulars and extras who are only partially dependent on their earnings or not dependent for necessaries (17.3 per cent) is more than twice the corresponding per cent (6.3) of the regulars, and the per cent of the year during which they are unemployed is also greater. Inability to get work, and illness are the main causes that keep them unemployed, but since employment is not essential for their existence, the problem is less serious for them than for the other groups. While a large proportion of these women reported that they were not able to get work, the fact that they were not dependent on their earnings enabled them to exercise a much nicer choice in the matter of the work which they would take. It is probable that had their need of employment been greater, less unemployment would have been reported for them. Their yearly earnings were small, averaging $137.38 for the women partially dependent and $84.23 for the women not dependent for necessaries.

While illness has been reported as the secondary cause of unemployment for the women having regular and extra work, the per cent reporting provision against illness by membership in store benefit or other associations is but 12.1, as compared with 45.4 per cent of the regulars. This is only natural, since the women having regular and extra work are often in stores too short a time to join the associations. Of the 42 members of associations, 2 reported receiving benefits during the year studied.

DEGREE OF DEPENDENCY OF FAMILIES ON EARNINGS OF WOMEN.

It would hardly seem that the women earning as little as the regulars and extras who are classed as "totally" and "principally" dependent could even in a measure furnish anything toward the support of their families, yet 3 families were reported totally dependent on the earnings of these women, and in 93 families the earnings of the girls were estimated as a fourth part at least of the total family income, so that it would have meant a real loss in any of these cases had the earnings of the girl been cut off. This is shown in the table following:

TABLE 86.—DEGREE OF DEPENDENCY OF FAMILY ON EARNINGS OF WOMEN EMPLOYED BOTH AS REGULARS AND EXTRAS.

Degree of family dependency on women's earnings.	Women reporting.	
	Number.	Per cent.
Totally dependent	3	0.9
Dependent on regular contributions of at least one-fourth of family income	93	26.7
Standard of living would be lowered if woman did not contribute	161	46.5
Not dependent for necessaries	84	24.3
No family	5	1.4
Total	346	100.0

In many families, while the actual amount contributed by each person may be too small for even one person to live on independently of the others, the aggregate may be enough to provide through cooperation a bare living for the whole family. It is by means of cooperation only that the families of these women can subsist on such incomes. In the table following is shown the number in these families related to the average weekly earnings of the women who contributed to their support:

TABLE 87.—WOMEN EMPLOYED BOTH AS REGULARS AND EXTRAS HAVING FAMILIES REGULARLY DEPENDENT ON THEIR EARNINGS FOR AT LEAST ONE-FOURTH OF FAMILY INCOME, BY WEEKLY EARNINGS IN STORES AND BY NUMBER OF PERSONS IN THE FAMILY BESIDES THEMSELVES.[1]

Average actual weekly earnings in stores.	1 person.	2 persons.	3 persons.	4 persons.	5 persons.	6 persons.	7 persons.	8 persons.	9 persons.	10 or more persons.	Total.	Average number of persons.
Under $4.00		1				2					3	4.7
$4.00 to $4.99		1	1	1	1	3	3	1		3	14	6.5
$5.00 to $5.99	2	1	1	8	3	3	1			1	20	4.5
$6.00 to $6.99	6	3		1				1			11	2.2
$7.00 to $7.99	1	2	1	3	1		1		2		11	4.6
$8.00 to $8.99	4	2	3	2	2					1	14	3.2
$9.00 to $9.99	2	2	1		1	1					7	2.9
$10.00 to $10.99			1			1			1		3	6.0
$11.00 to $11.99	1			1							2	2.5
$12.00 and over		1	1	1	1		1				5	4.2
Not reported	2			1							3	2.0
Total	18	13	9	18	9	10	6	2	3	5	93	4.1

[1] Only 3 families were reported totally dependent.

WOMEN HAVING EXTRA WORK ONLY.

The statement has been made earlier in this report that women reporting both regular and extra work represented for the most part women who desired and needed to be in the ranks of regular wage earners, but because of inefficiency or inexperience, or both, were unable to maintain the regularity of employment shown by those who worked as regulars only. The indications are that the women who worked as extras only also include many less efficient women who would like regular work if they could get it, but represent more largely the other women whose home responsibilities are such that they can not take regular work, or, being financially beyond pressing need, do not want regular work, or schoolgirls who, while they have not yet been pressed into the ranks of regular workers, feel the need of making some contribution toward their own support.

The work of most of these "extras" is very irregular, and, if it is to amount to any considerable number of days, must be in several establishments, as the periods of employment in any one store are usually short, unless a woman is fortunate enough to be what is known as a "regular extra"; that is, one who comes in for certain specified days or evenings every week. Of the 261 women reporting extra work only there were 79 who had regular extra work. But even the regular extras are not sure of their employment, as in some stores it is the practice to have a certain number of "extras" report every week on the specified days, to be told when they arrive at the store whether they will be needed or not. This involves a loss of time and car fare in case the women are not wanted, yet the extra work is in such demand that the stores can still be sure of enough applicants to fill the requirements in spite of this custom. In some cases, however, the women are notified by postal card if they will not be needed.

If a woman is not a "regular extra" she must take a few days here and a few days there, as she can get them. Most stores advertise for the extras needed for their large sales; other stores keep mailing lists and send notices as help is required; others fill their positions from the continuous stream of applicants, and girls who make a business of getting all the extra work they can go from store to store during the busy seasons until they find one that needs their services. The record of employment of the "extras" shows, therefore, much more shifting from store to store than either the "regulars and extras" or "regulars only," as the following summary shows:

TABLE 38.—NUMBER AND PER CENT OF EXTRAS REPORTING WORK IN ONE OR MORE ESTABLISHMENTS DURING YEAR.

Number of establishments in which employment was reported.	Women reporting.	
	Number.	Per cent.
1 establishment	170	65.1
2 establishments	53	20.3
3 establishments	27	10.3
4 establishments	8	3.1
5 or more establishments	3	1.1
Total	261	100.0

The women who report work in one establishment only may have had a number of periods of employment, instances having been found where the same woman appeared as an "extra" on the pay roll of one store from 10 to 15 different times. The work of eliminating duplicate names involves careful scrutiny, as many women of the same name appear on the rolls, and to be sure of the identity of two or more names further information, such as address, occupation, rate, etc., must be compared.

EXTENT OF EMPLOYMENT AND UNEMPLOYMENT.

The average amount of employment reported by the 261 women who had extra work only was but 42.5 days or part days. This was distributed through 14.8 weeks, so that the average number of days or part days was but 2.9 per week. The following summary shows the number of women reporting specified number of weeks' during which they had some extra work:

TABLE 39.—NUMBER AND PER CENT OF EXTRAS REPORTING SPECIFIED NUMBER OF WEEKS DURING WHICH THEY HAD SOME WORK.

Weeks during which extras had some work.	Women reporting.	
	Number.	Per cent.
Under 5 weeks	58	22.2
5 and under 9 weeks	46	17.6
9 and under 13 weeks	43	16.5
13 and under 17 weeks	22	8.4
17 and under 21 weeks	20	7.7
21 and under 25 weeks	21	8.0
25 and under 30 weeks	16	6.1
30 and under 35 weeks	10	3.8
35 and under 40 weeks	7	2.7
40 and under 45 weeks	7	2.7
45 and under 50 weeks	7	2.7
50 to 52 weeks	3	1.1
Not reported	1	.4
Total	261	100.0

This table shows clearly the brief duration of the extra work for most of the women, over half reporting less than 13 weeks in which their employment occurred. The few who reported 40 or more weeks with extra work were women having "regular" extra work, that is working certain days or evenings every week.

Since the period of employment for the "extras" averaged but 42.5 days, and there were only 14.8 weeks in the year in which this extra work took place, the period without employment constitutes for these women by far the greater part of the year. It was manifestly impossible to account for this time day by day or week by week, even if such inquiry were entirely pertinent to this study. The pertinent and important inquiries to be made were—

1. How many women wanted regular work and why could they not obtain it?

2. Why did the remaining women not want regular work?

In order to answer these questions the 261 women reporting extra work only were classed in groups of those "needing and seeking more work," "schoolgirls," "married women," "women whose assistance was required at home," and "women not needing work." The reasons given by these women for failure to secure more work are summarized in the table following.

TABLE 40.—CAUSES OF UNEMPLOYMENT AMONG EXTRAS, GROUPED ACCORDING TO PERSONAL AND DOMESTIC STATUS.

Personal and domestic status.	Women reporting.		Women wanting more extra work.		Women wanting regular full-time work.		Number wanting regular work reporting specified causes of unemployment.				
	Number.	Per cent of all women working as extras only.	Number.	Per cent of women in group.	Number.	Per cent of women in group.	Inability to find work.	Work wanted in stores only.	Lack of persistent effort to find work.	Work wanted in certain occupations only.	Youth (under 16) a handicap in finding work.
Women needing and seeking work and not otherwise occupied	71	27.2	70	98.6	[1] 71	100.0	[2] 28	[3] 18	[4] 9	[2] 10	[2] 6
Schoolgirls	65	24.9	33	50.8	8	12.3	1	....	1	3	3
Married women keeping house or boarding	63	24.1	29	46.3	16	25.4	5	[5] 9	1	1	....
Women whose assistance was required at home	39	15.0	24	61.5	10	25.6	2	....	5	2	1
Women living at home and not needing work	23	8.8	13	56.5	5	21.7	....	....	4	1	....
Total	261	100.0	169	64.8	[1] 110	42.1	[2] 36	[6] 27	[4] 20	[2] 17	[2] 10

[1] Including 1 who wanted regular work, but was unable to work on account of ill health.
[2] Including 1 in school part of year.
[3] Including 6 desiring positions as saleswomen only, one of these stipulating at least $8 a week and 3 desiring positions in certain establishments only.
[4] Including 3 who wanted work, but were prevented on account of ill health; 1 of these in school part of year.
[5] Including 2 who wanted work in particular establishment only, and 3 as saleswomen only.
[6] See notes to details.

Of the 261 women, the largest single group, 71, or 27.2 per cent, was composed of those who were classified as actually needing work and having no demands on them that would prevent them from seeking work. All of these women wanted regular work and all but one, more extra work (that one had "regular" extra work). But some of these women failed to get work apparently because they were not making much effort, some were attaching too many conditions, and some were handicapped by youth, though the majority of this particular group of extras were trying to get any work available. That the women who need regular work, however, do not always accept it on any terms, was made plain during an interview with a young girl who had had some extra work as examiner. She was attempting to explain to the agent why she had not secured regular work when an older sister interrupted the conversation by saying with obvious contempt: "Why don't you tell the lady why you can't get a job?" And turning to the agent the sister then remarked: "She won't take anything but a job as saleswoman at $7, and no store would give her that—she is too lazy."

Of the 65 school girls, only 8 wanted regular work, and would have left school if they could have found it. The married women numbered 63, and of these 16 wanted regular work. These included a few women who, with their husbands, were boarding and therefore did not have the demands on their time that they would have had as housekeepers. The others were women who could have turned over the responsibility of housekeeping to some other member of the family if they could have obtained work. The greater part of these women wanted work in stores only, but 5 reported an unsuccessful attempt to find any work at all. Thirty-nine of the 261 women were women or girls whose presence had been made necessary at home by the death or incapacity of the mother of the family, or because the mother wanted help. Ten of these, however, if they had found work could have given to someone else the home duties they were performing.

The last group, which included the women who had no need of work, constituted but 8.8 per cent of the total number. Only five of these women expressed any desire for regular work and they had made no great effort to find it.

Summing up the data on this subject from all of the 261 women, in answer to the query as to how many women wanted regular work and why they could not obtain it, it appears that 110, or 42.1 per cent, wanted regular work but did not get it, inability to find work although persistent effort had been made being reported by 36 of the 110 as the reason. It is probable that these women had proved more or less inefficient. Of the remaining 74, 27 would not take any but store work and could not get that; 17 wanted work at special occupations, as saleswomen, stenographers, etc., and could not find a position to suit them; 20 said they wanted work and had made some effort to get it but had given up the search. The remaining 10 were girls under 16 for whom the task of finding any work under the existing laws has become exceedingly difficult. The interviews with these women brought out the fact that 151, or 57.9 per cent of all the extras, did not want regular work, 76 because they had home responsibilities, 57 because they were in school, and 18 because they were in no financial need of work and preferred not to work regularly.

These, in general, are the principal causes for the unemployment of the extras. Oftentimes there have been minor contributory causes, and often several causes have happened to be almost equally important. Illness, which has hitherto played so prominent a part in the causes of unemployment, has not appeared at all in connection with the employment records of those having "extra work only," not because there was no illness among these extras but because illness as a cause has been submerged by more important reasons for unemployment. For example, a woman who had been persistently seeking work the greater part of the year might contract some illness lasting several weeks. While that illness would temporarily prevent her from seeking work, the first cause of her unemployment was her inability to find work, not her illness. In the same way a woman whose home responsibilities prevented her from taking regular work might be ill, but that would not be the cause of her unemployment. Where there has been no regular employment during the year, it would be rare for illness to appear as a cause of unemployment.

RATES OF PAY AND EARNINGS.

In Table 41 the different periods for which the extras were employed are shown, with the average number of periods worked and the average rate paid.

TABLE 41.—AMOUNT OF EMPLOYMENT AND RATES OF PAY OF WOMEN EMPLOYED AS EXTRAS ONLY, BY OCCUPATIONS.

[Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not shown.]

Occupation.	Normal day.			Long day.			Evening.			Half day.		
	Number reporting.	Average number of days worked.	Average rate of pay.	Number reporting.	Average number of days worked.	Average rate of pay.	Number reporting.	Average number of evenings worked.	Average rate of pay.	Number reporting.	Average number of half days worked.	Average rate of pay.
Saleswomen	175	[1] 20.7	$1.30	31	15.8	$1.23	25	15.4	$0.66	16	9.8	$0.79
Cashiers, examiners, bundle wrappers, etc.	36	9.3	.75							1	1.0	.33⅓
Office employees	8	23.1	1.11									
All other occupations	8	9.0	1.00							1	30.0	1.00
Total	227	[1] 18.6	1.20	31	15.8	1.23	25	15.4	.66	18	10.4	.78

Occupation.	Afternoon and evening.			Full week.			Total number reporting.	Average number of weeks with some employment as an extra.	Average number of days with some employment as an extra.	Average amount earned during year.
	Number reporting.	Average number of afternoons and evenings worked.	Average rate of pay.	Number reporting.	Average number of weeks worked.	Average rate of pay.				
Saleswomen	20	29.4	$1.06	127	5.0	$7.61	207	[1] 16.2	[1] 43.9	$57.35
Cashiers, examiners, bundle wrappers, etc.				25	5.0	4.31	38	7.4	28.8	20.63
Office employees				7	2.6	7.00	8	11.9	36.6	45.46
All other occupations				8	10.9	[2] 5.12	8	15.0	78.0	[2] 55.14
Total	20	29.4	1.06	167	5.2	[2] 6.98	261	[1] 14.8	[1] 42.5	[2] 51.35

[1] One woman did not report number of days employed.

[2] Not including the rate reported by 1 woman who worked 6 days a week, but only during the evening, for which she received $3.50 a week.

The period most commonly reported in all occupations was the normal day and next to that the full week. Saleswomen are practically the only ones reporting employment for any of the other periods. The average number of normal days reported was 18.6 and the average number of full weeks was 5.2.

The rates paid for extra work were practically the same for the women who had extra work only as for those having both regular and extra. For saleswomen, who constituted by far the greatest per cent of the extras, the average rate for an ordinary day was $1.30; the average rate for a long day,[1] $1.23. That a "long day" should have a lower rate than a normal day is explained by the fact that the "long day" was reported principally in 5 and 10 cent stores and neighborhood stores and the "normal day" in down-town department stores, which pay higher wages. The rate for an evening's work averaged 66 cents. No definite period of hours can be given as an "evening." It might mean from 5 until 9, or from 6 until 10, or from 7 until 9.30, varying even in the same establishment. The rate of pay for a half day (usually Saturday afternoon) averaged 79 cents and for an afternoon and evening $1.06. The average rate per week was less than the ordinary day rate for six days, being $7.61. This is less than the average rate for regular saleswomen, which was $8.63. The average amount earned by saleswomen during the year was $57.35, which represented 43.9 days with some employment as an extra. As many saleswomen received a commission in addition to their rate, these earnings were somewhat more than the rates.

The cashiers, examiners, etc., had an average day rate of 75 cents and an average weekly rate of $4.31. The average amount which they earned during the year was but $20.63. This represented, however, but 28.8 days with extra work.

The average amount earned during the year by the 261 women for all extra work was $51.35. While this represented 42½ days with some extra work, it is not fair to reduce it to daily earnings or weekly earnings, since it is impossible to determine how many normal days or weeks the 42½ days represented. It seems fair to say that the rates paid for extra work as saleswomen appear to be rather lower than the average for regular saleswomen, though not lower than many regular saleswomen receive, and a trifle higher for cashiers, examiners, etc. The other occupations are represented by too few women to make comparisons valuable.

---

[1] For meaning of "long day" see p. 50.

AGE, CONJUGAL CONDITION, AND MANNER OF LIVING.

A comparison of the three tables following with the corresponding tables for the regulars only and for the regulars and extras will reveal the fact that those who worked as extras only contain a larger proportion of girls under 21 than the regulars, a larger proportion of married women than either of the other groups, and a smaller proportion of those living as daughter in the family than the other groups:

TABLE 42.—CLASSIFIED AGES OF WOMEN EMPLOYED AS EXTRAS ONLY.

Age group.	Number.	Per cent.	Age group.	Number.	Per cent.
Under 16	16	6.1	40 and under 45	9	3.4
16 and under 18	50	19.2	45 and under 50	8	3.1
18 and under 21	52	19.9	50 and under 55	2	.8
21 and under 25	49	18.8	55 and over		
25 and under 30	30	11.5			
30 and under 35	21	8.0	Total	261	100.0
35 and under 40	24	9.2			

TABLE 43.—CONJUGAL CONDITION OF WOMEN EMPLOYED AS EXTRAS ONLY.

Conjugal condition.	Number.	Per cent.
Single	193	73.9
Married	55	21.1
Widowed	9	3.4
Divorced or separated	4	1.5
Total	261	100.0

TABLE 44.—MANNER OF LIVING OF WOMEN EMPLOYED AS EXTRAS ONLY.

Manner of living.	Number.	Per cent.
Independently:		
As head of family	10	3.8
As boarder or lodger	6	2.3
As member of family group:[1]		
Daughter	176	67.4
Wife	52	19.9
Sister or sister-in-law	12	4.6
Niece	3	1.1
Other relative	2	.8
Total	261	100.0

[1] This does not mean that a woman might not be paying board or otherwise contributing to the family support.

DEGREE OF DEPENDENCY AND YEARLY EARNINGS.

It would not be expected that any woman having only extra work could be totally dependent on her earnings. That there should be as many who are dependent to some extent on their earnings as the following table indicates shows that these women can not be passed by as not needing work.

TABLE 45.—DEGREE OF DEPENDENCY ON EARNINGS OF WOMEN EMPLOYED AS EXTRAS ONLY.

Degree of dependency on earnings.	Women reporting.	
	Number.	Per cent.
Totally dependent		
Principally dependent	107	41.0
Partially dependent	85	32.6
Not dependent for necessaries	69	26.4
Total	261	100.0

Only 69, or 26.4 per cent, were not at all dependent on their earnings; 85 could be provided with room and board, but could not be entirely supported by their families without lowering family standards of living; 107, or 41 per cent, were dependent chiefly on their earnings, for they could not have been supported by their families without becoming depressing burdens.

The extent to which the families of these women were dependent upon their earnings is shown in the table which follows:

TABLE 46.—DEGREE OF DEPENDENCY OF FAMILY ON EARNINGS OF WOMEN EMPLOYED AS EXTRAS ONLY.

Degree of dependency of family on women's earnings.	Women reporting.	
	Number.	Per cent.
Totally dependent		
Dependent on regular contributions of at least one-fourth of family income	7	2.7
Standard of living would be lowered if woman did not contribute	91	34.9
Not dependent for necessaries	162	62.1
No family	1	.4
Total	261	100.0

The earnings of these women were of importance to the families of at least 98, since in seven cases the usual contributions of the girls represented at least one-fourth of the family income,[1] and 91 reported that without contributions from their earnings the family standards would have to be lowered.

The table following, showing the yearly earnings by degree of dependency, indicates that in a good many instances the family standard must have been considerably lowered because of the lack of employment of women whose earnings were really needed.

---

[1] For description of classifications of degrees of dependency, see p. 34.

TABLE 47.—DEGREE OF DEPENDENCY OF WORKER ON HER EARNINGS AMONG WOMEN EMPLOYED AS EXTRAS ONLY, BY CLASSIFIED EARNINGS.

Amount earned in retail stores during year.	Principally dependent.	Partially dependent.	Not dependent for necessaries.	Total.
Under $10	7	13	26	46
$10 to $19.99	14	17	7	38
$20 to $29.99	11	10	7	28
$30 to $39.99	12	15	8	35
$40 to $49.99	12	7	2	21
$50 to $59.99	8	4	4	16
$60 to $69.99	8	4	2	14
$70 to $79.99	5	3	2	10
$80 to $89.99	2	2	1	5
$90 to $99.99	5	4	2	11
$100 to $124.99	7	2	3	12
$125 to $149.99	6	2	1	9
$150 to $324.99	10	2	4	16
Total	107	85	69	261
Average earnings during year	$65.55	$43.19	$39.51	$51.38

The average amount earned during the year by the 107 women who were principally dependent was but $65.55. It should be remembered that this classification includes those women whose families could not furnish them with room and board if unemployed without lowering their standards. The women partially dependent on their earnings averaged $43.19. These were women whose families could give them room and board without lowering their standards, but could not furnish them with money for their other necessary expenses. The women not dependent on their earnings for any of the necessaries averaged during the year $39.51.

It seems clear, therefore, that the earnings of a considerable number of those who worked exclusively as extras, though small, were needed, and that in many instances the failure of these women to secure more work or regular work meant real deprivation to both themselves and their families.

SUMMARY TABLES.

For the 1,156 women who were employed as regulars only, the two summary tables following show the extent and causes of unemployment during the year for which data were secured. Under each cause are given the number of women reporting any unemployment from such cause, together with the number of full weeks and the number of scattered days of unemployment. In Table 48 these data are given by occupation groups, and in Table 49 by degree of dependency on earnings.

TABLE 48.—CAUSES AND AMOUNT OF UNEMPLOYMENT AMONG 1,156 WOMEN EMPLOYED AS REGULARS ONLY IN RETAIL STORES AND IN OTHER INDUSTRIES, BY OCCUPATION GROUPS.

[Occupations shown in this table refer to work in stores only; the occupations while employed in other industries are not given. All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment. "Full weeks," as used in this table, means 6 consecutive working-days; "scattered days" of unemployment are those which occurred during weeks in which the woman had some employment.]

Occupation group.	Number of women.	Total number of weeks in period.	Weeks not in industrial pursuits.			Weeks in employ of—		Unemployment.						Unemployment from each specified cause.								
									Time lost while in employ of—				Total weeks of unemployment.	In school.			Unpaid vacation.			Sickness of worker.		
									Stores.		Other industries.											
			Before first employment.	After marriage.	Other reasons.	Stores.	Other industries.	Weeks without a job.	Full weeks.	Scattered days.	Full weeks.	Scattered days.		Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.
Saleswomen	601	31,252	152	292½	157⅓	28,353⅓	767	1,529½	1,506	6,175 1/16	3	56	4,077 1/16	1	......	½	288	534	700⅚	480	691	3,594⅚
Cashiers	252	13,104	1,595½	......	47	10,034	662⅔	765	369	1,937 1/12	29	156½	1,511 67/72	4	12	8	76	114	118⅓	191	197	1,087 1/12
Office employees	167	8,684	323 1/12	......	23⅚	8,125 1/12	148	63	261	1,343 11/12	......	4	548 47/72	......	......	......	58	68	118⅓	142	133	1,016⅔
Workroom employees	76	3,952	16⅔	11	......	3,617⅓	75	236	423	871 1/12	......	10	805 61/72	......	......	......	20	46	87	45	46	257⅔
Stock girls	25	1,300	123	......	......	1,009	100	68	67	176½	......	6	165 5/12	......	......	......	4	10	1½	22	39	154⅙
Others	35	1,820	......	......	......	1,604⅙	95⅚	120	39	271 1/12	......	9	205 49/72	......	......	......	13	16	22½	27	56	184 1/12
Total	1,156	60,112	2,210⅔	303½	228⅙	52,743 1/12	1,848½	2,781½	2,665	10,775 1/16	32	241½	7,314 11/18	5	12	8½	459	788	998⅔	907	1,162	6,295⅙

TABLE 48.—CAUSES AND AMOUNT OF UNEMPLOYMENT AMONG 1,156 WOMEN EMPLOYED AS REGULARS ONLY IN RETAIL STORES AND IN OTHER INDUSTRIES, BY OCCUPATION GROUPS—Concluded.

Occupation group.	Unemployment from each specified cause.																				
	Sickness in family.			Home responsibilities.			Other personal causes.			Enforced lay off.			Inability to get work.			Other industrial causes.			Not reported.		
	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.
Saleswomen	95	460	670 1/15	39	265	205 1/3	75	313	200 1/4	179	327	687 1/2	75	384 1/2	150 1/2	9	46	18	5	18	3 1/3
Cashiers	30	87	171 3/4	24	210	67 1/3	40	18	83 1/12	84	156	366 1/3	68	348	175 1/2	6	13	13 1/2	2	8	2
Office employees	23	30	104 3/4	4	6	7	8	......	28 1/12	22	28	47 3/4	13	57	20	4	2	5	......	......	......
Workroom employees	16	21	109 1/2	3	6	15	9	......	44	65	390	395 1/4	9	150	22	......	......	......	1	......	1/2
Stock girls	2	......	5	......	......	......	1	......	3/4	10	18	20 1/4	5	68	1	......	......	......	......	......	......
Others	3	1	15	1	......	9	5	......	9 3/4	4	6	17	8	80	22 1/3	......	......	......	......	......	......
Total	169	509	1,076 1/15	71	487	303 2/3	138	331	365 11/12	364	925	1,534 1/12	178	1,087 1/2	391 1/3	19	61	36 1/2	8	26	5 5/6

TABLE 49.—CAUSES AND AMOUNT OF UNEMPLOYMENT AMONG 1,156 WOMEN EMPLOYED AS REGULARS ONLY IN RETAIL STORES AND IN OTHER INDUSTRIES, BY DEGREE OF DEPENDENCY ON EARNINGS.

[All who lost less than 6 days have been excluded from this table. Lost time for which the firm paid wages has not been included as unemployment. "Full weeks," as used in this table, means 6 consecutive working-days; "scattered days" of unemployment are those which occurred during weeks in which the woman had some employment.]

Degree of dependency on earnings.	Number of women.	Total number of weeks in period.	Weeks not in industrial pursuits.			Weeks in employ of—		Unemployment.					Total weeks of unemployment.	Unemployment from each specified cause.								
									Time lost while in employ of—					In school.			Unpaid vacation.			Sickness of worker.		
									Stores.		Other industries.											
			Before first employment.	After marriage.	Other reasons.	Stores.	Other industries.	Weeks without a job.	Full weeks.	Scattered days.	Full weeks.	Scattered days.		Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.
Entirely dependent	107	5,564	......	11	105⅚	5,109½	192	145½	336	1,020 1/12	......	......	641 11/12	......	......	......	41	84	72	84	81	597 11/12
Partially dependent	60	3,120	377⅙	9	98⅚	2,372	15	248	148	520⅓	......	......	482 11/12	......	......	......	32	48	57⅙	44	71	317 1/12
Principally dependent	976	50,752	1,679 11/12	265½	23⅚	44,857 1/12	1,641½	2,288	2,149	9,061 11/12	32	241½	6,019 11/12	5	12	8½	381	645	861½	772	988	5,344 1/12
Not dependent for necessaries	13	676	153⅔	18	......	404½	......	100	42	172¾	......	......	170 11/12	......	......	......	5	11	8	7	22	35⅔
Total	1,156	60,112	2,210¾	303½	228½	52,743 1/12	1,848½	2,781½	2,665	10,775 1/12	32	241½	7,314 11/12	5	12	8½	459	788	998⅔	907	1,162	6,295⅓

TABLE 49.—CAUSES AND AMOUNT OF UNEMPLOYMENT AMONG 1,156 WOMEN EMPLOYED AS REGULARS ONLY IN RETAIL STORES AND IN OTHER INDUSTRIES, BY DEGREE OF DEPENDENCY ON EARNINGS—Concluded.

Degree of dependency on earnings.	Unemployment from each specified cause.																				
	Sickness in family.			Home responsibilities.			Other personal causes.			Enforced lay off.			Inability to get work.			Other industrial causes.			Not reported.		
	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.	Women reporting.	Full weeks.	Scattered days.
Entirely dependent...	19	63	74	4	9	16⅔	6	21	10	42	167	229¼	10	29½	18⅓	1	....	1	3	17	1⅙
Partially dependent...	6	50	34⅔	1	19	....	8	68	16¼	12	52	67	8	76	13⅙	3	12	14	....	....	....
Principally dependent	142	448	960$\frac{11}{12}$	62	432	191	122	231	335⅔	306	686	1,216⅙	159	969	360	15	49	21½	5	9	4⅙
Not dependent for necessaries..........	2	38	7	4	27	96	2	11	4	4	20	22	1	13	....	....	....	....	....	....	....
Total..........	169	599	1,076$\frac{7}{12}$	71	487	303⅔	138	331	365$\frac{11}{12}$	364	925	1,534$\frac{5}{12}$	178	1,087½	391½	19	61	36½	8	26	5⅓

INDEX.

Page.

- Age, conjugal condition, and manner of living:
  - Extras only 64
  - Regulars and extras 52
  - Regulars only 33-35
- Bundle wrappers. (*See* Cashiers, examiners, etc.)
- Cashiers, examiners, etc.:
  - Extras only, amount of employment and rates of pay 62
  - Regulars and extras, amount of extra employment and rates of pay 51
  - Regulars only, employment and unemployment reported, average weeks of 16
  - Regulars, extras, and both regulars and extras, proportion of 12
  - Regulars only, industries other than mercantile, average weekly earnings 32
  - Regulars only, stores and other industries, average annual earnings 27
  - Regulars only, stores, average weekly earnings 29-31
  - Regulars only, stores, average weeks of employment and unemployment 24
  - Regulars only, unemployment reported, due to each specified cause 20, 25
- Dependency of family, degree of, on earnings of—
  - Extras only 65
  - Regulars and extras 56, 57
  - Regulars only 40-43
- Dependency on earnings of—
  - Extras only 64-66
  - Regulars and extras 53-56
  - Regulars only 32-40
  - Regulars only, and causes and amount of unemployment 69, 70
  - Regulars only, and unemployment 35-40
- Earnings:
  - Dependency of families on, of regulars and extras 56, 57
  - Dependency on, of extras only 64-66
  - Dependency on, of regulars only 32-43
  - Industries other than mercantile, average weekly, regulars only 31, 32
  - Periods of employment and, regulars and extras 48-51
  - Rates of pay and, of extras only 62, 63
  - Stores and other industries, average annual, regulars and extras, by degree of dependency on earnings 54
  - Stores and other industries, average annual, regulars only, by degree of dependency on earnings 38
  - Stores and other industries, average annual, regulars only, by occupations 27, 28
  - Stores and other industries, average weekly, regulars and extras 49
  - Stores, average weekly, regulars only 26
  - Stores, average weekly, regulars only, having dependent families 42
  - Stores, classified actual and average weekly, regulars only, by occupations 29
  - Stores, regulars only 29-31
  - Unemployment and, regulars only 26-29
- Employment and unemployment, extent of:
  - Extras only 59-62
  - Regulars and extras 45-48
  - Regulars only 15-18
- Extras and regulars, women employed as both 45-57
  - Age, conjugal condition, and manner of living 52
  - Dependency of family on earnings of 56, 57
  - Dependency on earnings, degree of, and unemployment 53-56
  - Earnings of, and periods of employment 48-51
  - Employment and unemployment, extent of 45-48
- Extras only, women employed as 57-66
  - Age, conjugal condition, and manner of living 64
  - Dependency, degree of, and yearly earnings 64-66
  - Earnings and rates of pay 62, 63
  - Employment and unemployment, extent of 59-62
- Messengers. (*See* Cashiers, examiners, etc.)
- Occupations, specified:
  - Earnings in, average annual, stores and other industries, regulars only 27, 28
  - Earnings in, average weekly, industries other than mercantile, regulars only 32
  - Earnings in, average weekly, stores, regulars only 29
  - Employment and unemployment in, average weeks of, regulars only 16
  - Extras only, regulars only, etc., proportion of, in 12
  - Rates of pay in, and amount of employment, extras only 62
  - Unemployment in, amount and causes of, stores and other industries, regulars only 67, 68
  - Unemployment in, enumerated causes of, regulars only 20
  - Unemployment in, enumerated causes of, stores, regulars only 25
- Office employees:
  - Extras only, amount of employment and rates of pay 62
  - Regulars and extras, amount of employment and rates of pay 51
  - Regulars only, average weeks of employment and unemployment reported 16
  - Regulars only, extras only, etc., proportion of 12
  - Regulars only, industries other than mercantile, average weekly earnings 32
  - Regulars only, stores and other industries, average annual earnings 27
  - Regulars only, stores, average weekly earnings 29, 31
  - Regulars only, stores, average weeks of employment and unemployment 24
  - Regulars only, unemployment reported, due to each specified cause 20, 25

Page.

- Regulars only, women employed as 12–44
  - Age, conjugal condition and manner of living 33–35
  - Dependency of family on earnings of 40–43
  - Dependency on earnings 32–43
  - Dependency on earnings, and unemployment 35–40
  - Dependency on earnings and unemployment due to each specified cause 36
  - Earnings and unemployment 26–29
  - Earnings in other than mercantile industries 31, 32
  - Earnings in stores 29–31
  - Employment and unemployment, extent of 15–18
  - Sickness as a cause of unemployment 43, 44
  - Sickness, time lost by, by age groups 43
  - Stores and other industries, average annual earnings, by degree of dependency on earnings 38
  - Time lost while on pay roll of retail stores 23–26
  - Unemployment, causes of 18–23
- Saleswomen:
  - Extras only, amount of employment and rates of pay 62, 63
  - Regulars and extras, amount of extra employment and rates of pay 51
  - Regulars and extras, stores and other industries, average weekly earnings 49
  - Regulars only, employment and unemployment reported, average weeks of 16
  - Regulars only, extras only, etc., proportion of 12
  - Regulars only, industries other than mercantile, average weekly earnings 32
  - Regulars only, stores and other industries, average annual earnings 27, 29
  - Regulars only, stores, average weekly earnings 29, 30
  - Regulars only, stores, average weeks of employment and unemployment 24
  - Regulars only, unemployment reported, due to each specified cause 20, 25
- Scope and method of present investigation 10–12
- Sickness, importance of, as a cause of unemployment, regulars only 43, 44
- Stock girls:
  - Regulars, extras, etc., proportion of 12
  - Regulars only, employment and unemployment reported, average weeks of 16
  - Regulars only, industries other than mercantile, average weekly earnings 32
  - Regulars only, stores and other industries, average annual earnings 28
  - Regulars only, stores, average weekly earnings 29
  - Regulars only, stores, average weeks of employment and unemployment 24
  - Regulars only, unemployment due to each specified cause 20, 25
- Stores and other industries, proportion of women reporting employment in both, regulars only 14, 23
- Time lost while on pay roll of retail stores, regulars only 23–26
- Unemployment, causes of:
  - Extras only 60–62
  - Regulars and extras 53–57
  - Regulars only 18–23, 43, 44, 67–70
- Workroom employees:
  - Extras, regulars, etc., proportion of 12
  - Regulars only, employment and unemployment reported, average weeks of 16
  - Regulars only, industries other than mercantile, average weekly earnings 37
  - Regulars only, stores and other industries, average annual earnings 22
  - Regulars only, stores, average weekly earnings 29, 31
  - Regulars only, stores, average weeks of employment and unemployment 24
  - Regulars only, unemployment reported, due to each specified cause 20, 25

○

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS ... WHOLE NUMBER 193

WOMEN IN INDUSTRY SERIES: NO. [illegible]

DRESSMAKING AS A TRADE FOR WOMEN IN MASSACHUSETTS

MAY ALLINSON, Ph. D.

SEPTEMBER, 1916

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

REPORTS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

The publication of the annual and special reports and of the bimonthly bulletin has been discontinued, and since July, 1912, a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively in each series and also carry a consecutive whole number, beginning with No. 101. A complete list of the reports and bulletins of the Bureau will be furnished on application.

A list of the series of bulletins now published by the Bureau is as follows:

Wholesale Prices.
Retail Prices and Cost of Living.
Wages and Hours of Labor.
Employment and Unemployment.
Women in Industry.
Workmen's Insurance and Compensation (including laws relating thereto).
Industrial Accidents and Hygiene.
Conciliation and Arbitration (including strikes and lockouts).
Labor Laws of the United States (including decisions of courts relating to labor).
Foreign Labor Laws.
Miscellaneous Series.

WOMEN IN INDUSTRY.

Prior to the publication of the reports of the Bureau in the present form, many reports were issued devoted wholly or in part to the subject of "Women in Industry." For a full list of these the reader is referred to Bulletin No. 174, Subject Index of the publications of the Bureau of Labor Statistics up to May 1, 1915. Reports dealing with the subject (not including the numerous digests of State and foreign reports) are as follows:

*Fourth Annual Report, 1888, Working women in large cities.
Eighth Annual Report, 1892, Industrial education.
Eleventh Annual Report, 1895-96, Work and wages of men, women, and children.
*Bulletin No. 15, March, 1898, Boarding homes and clubs for working women.
Seventeenth Annual Report, 1902, Trade and technical education.
*Bulletin No. 67, November, 1906, Conditions of entrance to the principal trades.
*Bulletin No. [illegible], November, [illegible], Laws relating to employment of women and children.
*Bulletin No. 75, March, 1908, Industrial hygiene.
Twenty-third Annual Report, 1908, Workmen's insurance and benefit funds in the United States.
*Bulletin No. 80, January, 1909, Woman and child wage-earners in Great Britain.
Bulletin No. 83, July, 1909, Women's trade-union movement in Great Britain.
*Twenty-fourth Annual Report, 1909, Workmen's insurance and compensation systems in Europe.
*Bulletin No. 91, November, 1910, Working hours of wage-earning women in selected industries in Chicago.
*Twenty-fifth Annual Report, 1910, Industrial education.
*1905, Investigation of telephone companies. (S. Doc. No. 380, 61st Cong., 2d sess.)
*1910-1913, Report on condition of woman and child wage earners in the United States. (S. Doc. No. 645, 61st Cong., 2d sess.)
  *Vol. I, Cotton textile industry.
  *Vol. II, Men's ready-made clothing.
  *Vol. III, Glass industry.
  *Vol. IV, Silk industry.
  *Vol. V, Wage-earning women in stores and factories.
  *Vol. IX, History of women in industry in the United States.
  *Vol. X, History of women in trade unions.
  *Vol. XI, Employment of women in metal trades.
  *Vol. XII, Employment of women in laundries.
  *Vol. XIII, Infant mortality and its relation to the employment of mothers.
  *Vol. XIV, Causes of death among woman and child cotton-mill operatives.
  *Vol. XV, Relation between occupation and criminality of women.
  *Vol. XVI, Family budgets of typical cotton-mill workers.
  *Vol. XVIII, Employment of women and juveniles in groups of industries.
  *Vol. XIX, Labor laws and factory conditions.
*Bulletin No. [illegible], September, 1914, Working hours, earnings, and duration of employment of women workers in selected industries of Maryland and of California.
*1915, [illegible] (S. Doc. No. [illegible], [illegible] Cong., [illegible] sess.)

---

* Supply exhausted.

[Continued on third page of cover.]

U. S. DEPARTMENT OF LABOR

BUREAU OF LABOR STATISTICS

ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . WHOLE NUMBER 193

WOMEN IN INDUSTRY SERIES: NO. 9

DRESSMAKING AS A TRADE FOR WOMEN IN MASSACHUSETTS

MAY ALLINSON, Ph. D.

SEPTEMBER, 1916

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
20 CENTS PER COPY
▽

CONTENTS.

Page.

Introduction 5-9

Chapter I.—Evolution of the trade in the United States 11-21

Chapter II.—The dressmaking trade of to-day 23-52

  1. The family dressmaker 29
  2. The journeyman dressmaker 29, 30
  3. The private dressmaker 31-33
  4. The dressmaker of the transition stage 33-37
  5. The dressmaker of the shop of specialized workers 37-42
  6. The commercial dressmaker 42-49
  7. The manufacturing dressmaker 49-52

Chapter III.—Industrial conditions in the trade 53-81

  Business administration 53, 54
  The problem of capital 54-61
  The problem of competition 61-64
  The labor force 64-81

Chapter IV.—Irregularity of employment 83-111

  The seasons 83-93
  The workers' season 93-106
  Instability of the labor force 106-111

Chapter V.—Overtime in the dressmaking trade 113-126

Chapter VI.—Wages and earnings in Boston 127-146

Chapter VII.—Teaching the trade 147-159

Chapter VIII.—Summary and outlook 161-165

Bibliography 167-175

This study was begun in the fall of 1909 by the author as a fellow in the Department of Research of the Women's Educational and Industrial Union of Boston in cooperation with the Boston Trade School for Girls and was completed by her while assistant and associate director of the department. It has been accepted as a thesis by the faculty of political science of Columbia University in partial fulfillment of the requirements for the degree of doctor of philosophy. The work was done under the general direction of Dr. Susan M. Kingsbury, director of the Department of Research.

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 193. WASHINGTON. SEPTEMBER, 1916.

DRESSMAKING AS A TRADE FOR WOMEN IN MASSACHUSETTS.

BY MAY ALLINSON, PH. D.

INTRODUCTION.

The occupation of dressmaker ranked third in the United States in 1900 in the number of women employed, 338,144 women 16 years of age and over being engaged in it.[1] Only two occupations—that of servant and waitress and that of agricultural laborer—surpassed it in the number of women employed, but in none did women form a larger proportion of the total employees. Because of the numbers the trade employs, because it is woman's traditional occupation, and because it provides opportunities for development, training for the dressmaking trade has held a large and a logical place in the curriculum of vocational schools for girls. The growth of the movement for industrial education and for vocational guidance has called for a thorough knowledge of the various industries. Especially is this important in the case of those trades which have been recognized as in some degree desirable, and for which the trade schools have attempted to prepare young workers. Almost two-thirds (62 per cent) of the girls who went out from the three Massachusetts trade schools in 1914 had been trained for the dressmaking trade.

Dressmaking is a difficult trade subject for the casual and superficial observer to grasp, because of the variety of types of shops and methods of production which it presents. Dressmakers who go out by the day, small shops, large shops, factories of various types, give the superficial impression that every shop is different. Primitive and highly developed systems exist side by side, yet careful study shows that all may be classified within some six groups, each having a characteristic method of production. The student of census figures may be convinced that custom dressmaking is a declining trade and question if educators are justified in training young workers for this occupation. But in the development and growth of the large shop and the opportunity open to the day worker in the home, the investigator

---

[1] Special Reports of the Census Office, 1900. Statistics of Women at Work, p. 70. A total of 344,794 women was reported for 1900 and 343,161 for 1910. See Thirteenth Census of United States, 1910. Occupation Statistics, p. 56.

Page.
Regulars only, women employed as 12-44
  Age, conjugal condition and manner of living 33-35
  Dependency of family on earnings of 40-43
  Dependency on earnings 32-43
  Dependency on earnings, and unemployment 35-40
  Dependency on earnings and unemployment due to each specified cause 36
  Earnings and unemployment 26-29
  Earnings in other than mercantile industries 31, 32
  Earnings in stores 29-31
  Employment and unemployment, extent of 15-18
  Sickness as a cause of unemployment 43, 44
  Sickness, time lost by, by age groups 43
  Stores and other industries, average annual earnings, by degree of dependency on earnings 28
  Time lost while on pay roll of retail stores 23-26
  Unemployment, causes of 18-23
Saleswomen:
  Extras only, amount of employment and rates of pay 62, 63
  Regulars and extras, amount of extra employment and rates of pay 51
  Regulars and extras, stores and other industries, average weekly earnings 49
  Regulars only, employment and unemployment reported, average weeks of 16
  Regulars only, extras only, etc., proportion of 12
  Regulars only, industries other than mercantile, average weekly earnings 32
  Regulars only, stores and other industries, average annual earnings 27, 29
  Regulars only, stores, average weekly earnings 29, 30
  Regulars only, stores, average weeks of employment and unemployment 24
  Regulars only, unemployment reported, due to each specified cause 20, 25
Scope and method of present investigation 10-12
Sickness, importance of, as a cause of unemployment, regulars only 43, 44
Stock girls:
  Regulars, extras, etc., proportion of 12
  Regulars only, employment and unemployment reported, average weeks of 16
  Regulars only, industries other than mercantile, average weekly earnings 32
  Regulars only, stores and other industries, average annual earnings 28
  Regulars only, stores, average weekly earnings 29
  Regulars only, stores, average weeks of employment and unemployment 24
  Regulars only, unemployment due to each specified cause 20, 25
Stores and other industries, proportion of women reporting employment in both, regulars only 14, 23
Time lost while on pay roll of retail stores, regulars only 23-26
Unemployment, causes of:
  Extras only 60-62
  Regulars and extras 53-57
  Regulars only 18-23, 43, 44, 67-70
Workroom employees:
  Extras, regulars, etc., proportion of 12
  Regulars only, employment and unemployment reported, average weeks of 16
  Regulars only, industries other than mercantile, average weekly earnings 37
  Regulars only, stores and other industries, average annual earnings 22
  Regulars only, stores, average weekly earnings 29, 31
  Regulars only, stores, average weeks of employment and unemployment 24
  Regulars only, unemployment reported, due to each specified cause 20, 25

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . . WHOLE NUMBER 193

WOMEN IN INDUSTRY SERIES: NO. 9

DRESSMAKING AS A TRADE FOR WOMEN IN MASSACHUSETTS

MAY ALLINSON, Ph. D.

SEPTEMBER, 1916

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

REPORTS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

The publication of the annual and special reports and of the bimonthly bulletin has been discontinued, and since July, 1912, a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively in each series and also carry a consecutive whole number, beginning with No. 101. A complete list of the reports and bulletins of the Bureau will be furnished on application.

A list of the series of bulletins now published by the Bureau is as follows:

Wholesale Prices.
Retail Prices and Cost of Living.
Wages and Hours of Labor.
Employment and Unemployment.
Women in Industry.
Workmen's Insurance and Compensation (including laws relating thereto).
Industrial Accidents and Hygiene.
Conciliation and Arbitration (including strikes and lockouts).
Labor Laws of the United States (including decisions of courts relating to labor).
Foreign Labor Laws.
Miscellaneous Series.

WOMEN IN INDUSTRY.

Prior to the publication of the reports of the Bureau in the present form some reports were issued devoted wholly or in part to the subject of "Women in Industry." For a full list of these the reader is referred to Bulletin No. 174, Subject index of the publications of the Bureau of Labor Statistics up to May 1, 1915. Reports dealing with the subject (not including the numerous digests of State and foreign reports) are as follows:

*Fourth Annual Report, 1888. Working women in large cities.
Eighth Annual Report, 1892. Industrial education.
Eleventh Annual Report, 1895-96. Work and wages of men, women, and children.
*Bulletin No. 13, March, 1896. Boarding homes and clubs for working women.
Seventeenth Annual Report, 1902. Trade and technical education.
*Bulletin No. 67, November, 1906. Conditions of entrance to the principal trades.
*Bulletin No. 73, November, 1907. Laws relating to employment of women and children.
*Bulletin No. 75, March, 1908. Industrial hygiene.
Twenty-third Annual Report, 1908. Workmen's insurance and benefit funds in the United States.
*Bulletin No. 80, January, 1909. Woman and child wage-earners in Great Britain.
Bulletin No. 85, July, 1909. Women's trade-union movement in Great Britain.
*Twenty-fourth Annual Report, 1909. Workmen's insurance and compensation systems in Europe.
*Bulletin No. 91, November, 1910. Working hours of wage-earning women in selected industries in Chicago.
*Twenty-fifth Annual Report, 1910. Industrial education.
*1911. Investigation of telephone companies. (S. Doc. No. 380, 61st Cong., 2d sess.)
*1910-1913. Report on condition of woman and child wage earners in the United States. (S. Doc. No. 645, 61st Cong., 2d sess.)
  *Vol. I. Cotton textile industry.
  *Vol. II. Men's ready-made clothing.
  *Vol. III. Glass industry.
  *Vol. IV. Silk industry.
  *Vol. V. Wage-earning women in stores and factories.
  *Vol. IX. History of women in industry in the United States.
  *Vol. X. History of women in trade unions.
  *Vol. XI. Employment of women in metal trades.
  *Vol. XII. Employment of women in laundries.
  *Vol. XIII. Infant mortality and its relation to the employment of mothers.
  *Vol. XIV. Causes of death among woman and child cotton-mill operatives.
  *Vol. XV. Relation between occupation and criminality of women.
  *Vol. XVI. Family budgets of typical cotton-mill workers.
  *Vol. XVIII. Employment of women and children in selected industries.
  *Vol. XIX. Labor laws and factory conditions.
*Bulletin No. 96, September, 1911. Working hours, earnings, and duration of employment of women workers in selected industries of Maryland and California.
*1912. Report on strike of textile workers in Lawrence, Mass., in 1912. (S. Doc. No. 870, 62d Cong., 2d sess.)

---

* Supply exhausted.

(Continued on third page of cover.)

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . WHOLE NUMBER 193

WOMEN IN INDUSTRY SERIES: NO. 9

DRESSMAKING AS A TRADE FOR WOMEN IN MASSACHUSETTS

MAY ALLINSON, Ph. D.

SEPTEMBER, 1916

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
20 CENTS PER COPY
▽

CONTENTS.

Page.
Introduction.. 5-9
Chapter I.—Evolution of the trade in the United States........................ 11-21
Chapter II.—The dressmaking trade of to-day........................ 23-52
  1. The family dressmaker........................ 29
  2. The journeyman dressmaker........................ 29, 30
  3. The private dressmaker........................ 31-33
  4. The dressmaker of the transition stage........................ 33-37
  5. The dressmaker of the shop of specialized workers........ 37-42
  6. The commercial dressmaker........................ 42-49
  7. The manufacturing dressmaker........................ 49-52
Chapter III.—Industrial conditions in the trade........................ 53-81
  Business administration........................ 53, 54
  The problem of capital........................ 54-61
  The problem of competition........................ 61-64
  The labor force........................ 64-81
Chapter IV.—Irregularity of employment........................ 83-111
  The seasons........................ 83-93
  The workers' season........................ 93-106
  Instability of the labor force........................ 106-111
Chapter V.—Overtime in the dressmaking trade........................ 113-126
Chapter VI.—Wages and earnings in Boston........................ 127-146
Chapter VII.—Teaching the trade........................ 147-159
Chapter VIII.—Summary and outlook........................ 161-165
Bibliography.. 167-175

This study was begun in the fall of 1909 by the author as a fellow in the Department of Research of the Women's Educational and Industrial Union of Boston in cooperation with the Boston Trade School for Girls and was completed by her while assistant and associate director of the department. It has been accepted as a thesis by the faculty of political science of Columbia University in partial fulfillment of the requirements for the degree of doctor of philosophy. The work was done under the general direction of Dr. Susan M. Kingsbury, director of the Department of Research.

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 193. WASHINGTON. SEPTEMBER, 1916.

DRESSMAKING AS A TRADE FOR WOMEN IN MASSACHUSETTS.

BY MAY ALLINSON, PH. D.

INTRODUCTION.

The occupation of dressmaker ranked third in the United States in 1900 in the number of women employed, 338,144 women 16 years of age and over being engaged in it.[1] Only two occupations—that of servant and waitress and that of agricultural laborer—surpassed it in the number of women employed, but in none did women form a larger proportion of the total employees. Because of the numbers the trade employs, because it is woman's traditional occupation, and because it provides opportunities for development, training for the dressmaking trade has held a large and a logical place in the curriculum of vocational schools for girls. The growth of the movement for industrial education and for vocational guidance has called for a thorough knowledge of the various industries. Especially is this important in the case of those trades which have been recognized as in some degree desirable, and for which the trade schools have attempted to prepare young workers. Almost two-thirds (62 per cent) of the girls who went out from the three Massachusetts trade schools in 1914 had been trained for the dressmaking trade.

Dressmaking is a difficult trade subject for the casual and superficial observer to grasp, because of the variety of types of shops and methods of production which it presents. Dressmakers who go out by the day, small shops, large shops, factories of various types, give the superficial impression that every shop is different. Primitive and highly developed systems exist side by side, yet careful study shows that all may be classified within some six groups, each having a characteristic method of production. The student of census figures may be convinced that custom dressmaking is a declining trade and question if educators are justified in training young workers for this occupation. But in the development and growth of the large shop and the opportunity open to the day worker in the home, the investigator discovers tendencies not shown by the census, since it has abandoned statistics of the hand trades.

---

[1] Special Reports of the Census Office, 1900. Statistics of Women at Work, p. 70. A total of 344,794 women was reported for 1900 and 343,161 for 1910. See Thirteenth Census of United States, 1910. Occupation Statistics, p. 56.

The seasonal fluctuations of dressmaking and the consequent irregularity of employment have been causes for worry and doubt to those intrusted with the direction of the young prospective worker. If, however, we study the returns of the United States census, we are able to find practically no industries which do not have slack seasons and times of pressure. Again, some of those trades which offer the greatest prospects are the most seasonal trades. Custom dressmaking and millinery, the most seasonal of all trades, show opportunities for self-development and financial advancement discovered in few other industries open to the woman of limited education. The question is not, then, "Should girls avoid or should they go into these trades?" but rather, "How can those features which complicate and hinder opportunity for advancement be met or eliminated?"

"It is impracticable to stop the fluctuations in demand," wrote the Webbs in 1911. "But here, also, it is not necessary that the fluctuations should be permitted to work havoc with the workers' lives. * * * Though there is a slack season in nearly all trades, this occurs at different parts of the year. * * * The seasona alternations of overpressure and slackness to which so many workers are subjected, with such evil results, are due only to failures of adjustment. Now, it is not suggested that there is any way by which the local and temporary supply of each particular kind of labor can be precisely adjusted to the local and temporary demand for it. But it is clear that if only we put a little more deliberate organization into the matter a great deal could be done to avert the worst of the calamities."[1]

Comparison with other industries shows that, whatever may be its disadvantages, and though undergoing a marked decline, dressmaking still remains one of the desirable occupations for women in the industrial world.

A conference interested in the promotion of industrial education has defined a skilled occupation as one which meets three conditions: (1) Provision of a living wage for the worker; (2) a content which offers the possibility of differences in the quality of work turned out; (3) provision for promotion, through a series of progressive steps in the industry leading to something better.[2] Dressmaking meets these tests fairly well. While no woman-employing industry has been discovered in which the majority of workers earn a living wage, dressmaking ranks among the best in this respect. Since the fundamental and underlying principle of women's dress is variety, the dressmaking trade is one of the least standardized in process and product. Opportunity for promotion is unique in a custom trade where originality of thought and of design and artistic sense determine its very existence. Naturally few possess these qualities, which are not common to the masses, but increased opportunities for training would doubtless enable more to develop latent possibilities and to bridge the gap from the manual skilled processes to those requiring artistic ability.

---

[1] The Prevention of Destitution, by Sidney and Beatrice Webb. London, 1911, p. 126.

The Survey, Vol. XXXI, No. 17 (1914), p. 496.

Dressmaking is distinctly a domestic trade, only recently disturbed and stimulated by the modern industrial system. Thus, while geographically a universal occupation, its greatest development and largest opportunities appear only in large centers where the social and economic demand necessitates large scale development and business efficiency. Since the personnel is primarily feminine and the trade but recently emerging from its primitive domestic character, there is little development in business administration, practically no organization or community of action on the part of either the employers or workers for the protection of their particular interests, and but little official regulation or supervision.

Because of its tardy industrial development, custom dressmaking has received little attention from economists and statisticians. The standpoint of the former is expressed by Miss Abbott: "Although the 'sewing trades' are too important numerically from the point of view of the employment of women to be entirely neglected, their history can be given here only in outline * * * partly because of the fact that the employment of women in the making of clothing is less interesting than in the other industries which have been discussed. Sewing, needlework of any kind except, perhaps, the making of men's garments, has always been regarded as within women's 'peculiar sphere,' and the point of interest is, therefore, not that so many women are employed in the sewing trade, but that so many men have come into the industry as their competitors." [1]

The United States Census Office, after several attempts to secure statistics for the hand trades, abandoned the attempt "in view of the demonstrated inaccuracy of a hand-trade census and the impossibility of making it otherwise than inaccurate." [2] The census of occupations, made by the United States every ten years and that made by the Massachusetts Bureau of Statistics every intervening five years, give some statistics relative to numbers, nativity, and age secured in the population census.

From the industrial standpoint, no official statistics relative to numbers employed, seasons, and wages have been given since 1900, nor are they to be given in future censuses. Such statistics, when given, are inadequate for such an intimate acquaintance as is essential to the vocational educator or the placement agent. Those in charge of the direction of workers and prospective workers must know types of shops, method of production in each, processes available to young workers of limited experience, opportunities for advancement, the wages in relation to training and length of experience, types of girls who can avail themselves of the opportunities offered, the time of employment, length of working season as affected by experience and skill, conditions in the trade which explain the instability of labor or give suggestions for lessening it, and the trend of the industry itself.

---

[1] Women in Industry, by Edith Abbott, p. 215.

[2] United States Census, 1900. Manufactures, Vol. I, p. xl.

This investigation was begun in the fall of 1909 by the writer as a fellow in the department of research of the Women's Educational and Industrial Union of Boston in cooperation with the Boston Trade School for Girls. The investigator agreed to visit all graduates of the dressmaking course who were in the trade, for information concerning their trade career and for suggestions which might be helpful to the school in formulating its program. Eighty-four were discovered and visited who had been graduated before the fall of 1909. In all, 200 women workers and 100 employers of various types were interviewed in Boston concerning processes of the trade, means of learning these processes, the various occupations, requisite qualifications, length of time necessary to acquire these, the wage paid for the various kinds of work, the seasons and their significance to the different types of workers; in addition, the means and opportunity for supplementing their primary trade, and the home conditions and responsibilities of the workers were also considered. In 1910 a study was made by the department of research for the Massachusetts State Board of Education of the "Industrial opportunities in Worcester, Cambridge, and Somerville," and statistics collected during the study of the dressmaking shops in these cities were incorporated in this report.

In 1911 Miss Jennie Clement, a Simmons student who lived in Lowell, volunteered to make a survey of the trade in that city under the direction of the writer, and these returns also were incorporated in this report. Because the city directory and statistics of occupation massed together without distinction dressmakers of every degree of skill, shop, factory, and home workers, and employers and employees, an attempt was made to secure a general survey of each city as a whole and to determine the opportunities open to the worker who has learned her trade and proposes to follow it seriously. The results are reported in the following chapters.

After all this information was collected it was felt that the data concerning wages, actual earnings, and seasons were inadequate, and that to obtain satisfactory information on these subjects pay rolls must be studied. The investigator explained the situation to employers, and pay rolls were secured from 14 custom shops of varied types, covering 735 workers, and from two dressmaking factories, covering 522 workers. These were the only factories turning out a product comparable to that of the custom shops. While the information thus secured concerning seasons agreed to a surprising degree with the returns of the United States census in 1900, the wage statistics secured were unique and original, and made it possible for the first time to know the actual wage possibilities of a large number of workers in this trade. Some totally unexpected statistics relative to overtime, instability of labor, and the significance to the small employer of small capital and long credit also threw light on some of the most important problems of the trade.

The information gathered has been presented in considerable detail, with the hope that the statistical information gathered for the first and only time in this trade might be of service to employers, workers, educators, placement agents, and customers, all of whom may through increased knowledge do their share toward the solution of the problems presented.

CHAPTER I.

EVOLUTION OF THE TRADE IN THE UNITED STATES.

The women's clothing trade is unique among the industries of the twentieth century in its resistance to monopoly of wholesale manufacture, and is one of the few present-day industries which shows all stages of industrial evolution from a simple to a highly industrialized system existing side by side. Woman's insistence on individuality of style on the one side, and the large place occupied by women as producers on the other, have hindered and delayed large scale production, but the opening of the twentieth century shows that even this industry is being caught up in the current of centralized and large scale manufacturing. Still the five stages of chronological evolution observed in industry as a whole can be traced in the growth of an occasional small dressmaking shop of a couple of decades past into a great commercialized shop of to-day and can also be observed in the various types of shops about us.

These different systems of production typifying five different stages of evolution may be called (1) the family system, observed in home dressmaking; (2) the help or hire system, seen in the dressmaker who goes out by the day to the home of the customer; (3) the custom system, as seen in the "mistress dressmaker" who conducts a shop to which her customers come to have their work done; (4) the commercialized system, exemplified in women's furnishing stores, which combine a sales and a custom dressmaking department, and (5) the manufacturing system for retail and for wholesale trade. A brief sketch of this evolution through the three centuries of American history may provide a helpful background for a study of the present-day development.

In the American colonies, naturally, the earliest or family stage of industry, where "production was carried on within the family, by the family, and for the family,"[1] predominated and still exists to a large degree in the rural parts of the United States. Before the middle of the seventeenth century the second stage, the help or hire system, developed, by which the independent workman (usually a man) went from place to place offering his services and performing the work in the home of his customer.[2] Before the end of the century the third

---

[1] Principles of Economics, by E. R. A. Seligman, p. 88.

[2] A Simple Cobbler of Agawam, by Nathaniel Ward, p. 28; An Account of Pennsylvania and Virginia, by Gabriel Thomas, p. 41; Connecticut Colonial Records, Vol. II, p. 283.

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
20 CENTS PER COPY
▽

homes. The unattached woman seems to have been rare. As late as 1698 Gabriel Thomas remarks that there were no "old maids to be met with, * * * for all commonly marry before they are 20 years of age."[1] Forty-two years earlier another writer had observed that "loose persons," i. e., those free to dispose of their services as they pleased, "seldom live long unmarried if free."[2]

This relative scarcity of women or the fact that home dressmaking was largely done by servants and slaves may have been one reason why commercial dressmaking was largely in the hands of men. During the entire seventeenth century men tailors seem to have predominated in the commercialized sewing trades, for they are frequently mentioned by various writers, while women, when mentioned at all in this connection, are reported as scarce.

Before the end of the century dressmakers had reached the third stage, that of conducting a shop to which customers come to have work done, and by 1679 there was at least one instance of the fourth system, the women's furnishings stores which combine a sales department with custom dressmaking. In that year William Sweatland was conducting such a store at Salem, selling furnishings and making clothes for men, women, and children. There is still extant a bill of his against Jonathan Corwin, from which it appears that making and altering women's and children's garments formed an important part of his trade.[3]

Although women had apparently not reached this fourth stage during the seventeenth century, they had evidently attained the third, for in 1699 Jane Latham, "Seamstress and Manto Maker," wife of Joseph Latham, of New York, and Catharine White, "Tailor Woman," wife of Peter White, joyner, of the same State, were each doing enough business to take on a young apprentice to whom they contracted to teach the trade.[4] Taking apprentices presupposes the maintenance of a shop, as there is no record of dressmakers going out by the day and taking assistants with them.

Thus, by 1700, the first four systems under which dressmaking is carried on were in existence side by side in the colonies, though the first and second systems were probably very much in the lead. Throughout the seventeenth century the colonists, in addition to the clothes made by their own dressmakers and tailors, were receiving importations from abroad, especially from England. The writings of the times contain frequent references to the arrival of ships bearing, among other things, garments and finery for men and women alike.

---

[1] An Account of Pennsylvania and West New Jersey (1698), by Gabriel Thomas, pp. 45-51.

[2] Leah and Rachel (1656), by Hammond, p. 15.

[3] See Weeden's Economic and Social History of New England, p. 287, where a copy of this bill, covering the period from Sept. 29, 1679, to Feb. 26, 1681, is given.

[4] New York Historical Society Collections, 1885, pp. 582, 583.

During the eighteenth century changes in the dressmaking trade were more in the nature of shifting the emphasis on certain aspects than of introducing new features. The four systems continued to coexist. The household system does not appear to have diminished in importance, and the papers contain frequent advertisements for household servants who could combine sewing with the performance of their domestic duties. The help or hire system was also maintained, and a transition stage between this and the custom-shop system is shown by "Elizabeth Sanders Porter, Mantua-Maker from Boston," who "begs leave to inform the Ladies of this Town (Essex) that she makes Gowns, Hats, Cloaks and Riding Habits in the best and neatest Manner, at her own Home or at the Ladies' Houses."[1]

Shops carried on under the third and fourth systems became increasingly numerous and important, and more and more commonly women were found at their head. The first half of the century was marked by closer relations with Europe and by greater prosperity than had prevailed before. The increasing wealth of the colonies and their growing commerce tended to introduce European standards of dress, while the coming of royal governors and the establishment of official social life in the cities gave an added impetus to the movement. English dressmakers, tailors, and staymakers came over to find their prosperity in meeting the growing demand for rich and fashionable garments, and though men preceded the women, the latter soon became prominent as mistress dressmakers. From this position they soon developed into merchant dressmakers selling the completed garment made from materials, chosen by samples, manufactured at home or imported. Before the close of the first half of the eighteenth century, women appear as full-fledged merchant dressmakers, importers, and merchants of women's clothing. A Boston newspaper in 1733 announced: "To be seen at Mrs. Hannah Teatts, Mantua-maker at the head of Summer St., Boston, a Baby drest after the Newest Fashion of Mantues and Night Gowns and every thing belonging to a dress, lately arrived in Capt. White, from London, any Ladies that desire to see it may either come or send and she will be ready to wait on 'em, if they come to the House it is Five Shillings, and if she waits on them it is Seven Shillings."[2] Thus, there existed in the early eighteenth century, some of the most modern present-day features of the custom dressmaking trade—a mistress custom dressmaker, an importer of European models, carrying a varied stock of "Mantues, Night Gowns and every thing belonging to a dress," which she was prepared to display either in her shop or in the home of her customers.

---

[1] Essex Gazette, Aug. 14-21, 1770.

[2] New England Weekly Journal, July 2, 1733.

During the latter half of the eighteenth century the woman merchant dressmaker assumed a more prominent place among the importers of goods and clothing. Jane Eustis in 1756 had developed all the characteristics of the modern commercialized custom shop. In 1756 she dissolved her "copartnership" with Mary Purcell and opened a shop "next door to Mr. Kent's office, opposite the north side of the Town House," where she "sold for the lowest rates for cash . . . Hoops, stays . . . stomachers . . . bonnets, hair hats, Padusoy cloaks . . . umbrilles . . . Men's, Women's, and Children's hose . . . women's black silk kid and lamb gloves and mittens. N. B. Said Eustis makes in the neatest and newest fashion Capuchines, Cardinals, Hatts, Bonnets and Pallances, etc., etc."[1] Ten years later, 1766, in the same shop she had just "imported . . . from London" and was selling "for cash at her shop opposite the North Side of the Town-House, Boston . . . Brown and black Padusoys . . . Ducapes, pink and brown Mantuas, white and buff ground Brocades . . . quilted petticoats . . . Lady's habit . . . brocaded shoes and clogs . . . black and coloured bonnets and jockeys, plumes for ditto . . . silver and silk trimmings for gowns . . . chip hats and bonnets . . . with a great variety of Haberdashery and Millinery, too many to be ennumerated."[2]

By 1756 this woman of the American colonies had developed her custom dressmaking and millinery establishment to a commercialized shop where she sold imported ready-made wear beside her own manufactures. But in 1766 Jane Eustis made no mention of custom or order work. If this omission indicates that this phase of her business had sunk into insignificance beside the more profitable sales department, the similarity to modern conditions and tendencies becomes almost complete.

The importation of clothing from abroad continued throughout the century, although naturally it was greatly diminished during the Revolution. After the break with England, and indeed for some time before it, such importations were attacked on the ground that patriotism demanded the use of home products. It is impossible to say to what extent this attitude affected the dressmakers. Advertisements of dresses and dress materials from England and France continued to appear in the city papers, but in 1790 Hamilton claimed "in a number of districts that two-thirds, three-fourths, and even four-fifths of all the clothing of the inhabitants are made by themselves."[3] Outside of the larger cities dressmaking had developed very little beyond the first two systems, while the third and fourth probably appeared very little, if at all.

---

[1] Boston News Letter, June 24, 1756.

[2] Boston Gazette, Feb. 17, Dec. 8, 1766.

[3] American State Papers. Finance, vol. 1, p. 132.

In the nineteenth century, the women's clothing trade, still retaining all its primitive stages, developed the characteristics of "la grande industrie." There was still the "young lady [who] wishes a situation in a private family where she can do sewing, or assist in the domestic concerns to pay for her board,"[1] "a Young woman from England [who] wishes to engage herself in a genteel family to do needlework,"[2] and "a Lady possessing unusual taste and skill, and experience in fitting and making all kinds of Ladies' and Little Boys' and Girls' Garments, [who] would like to work for a few families in Charlestown or vicinity."[3] Beside these appeared the master tailor and mistress dressmaker, employers of labor. To what extent tailors and dressmakers employed help before the Revolution it seems difficult to determine, but undoubtedly the evolution of the larger shop during the eighteenth century increased the demand, and the recruiting of workers through advertisements in the newspapers, the usual method to-day, became apparent at the opening of the nineteenth century. For example, "M. Boyles, Mantua-maker from London," advertised for "Two young women, wanted as apprentices," in Boston in 1799.[4] As her advertisement ran in the paper for four weeks, the applicants were apparently no more numerous or desirable than at present. In 1800 there was "wanted at the Tailoring Business a smart young Woman 18 or 20 years of age,"[5] and in 1828 "Six first-rate tailoresses to whom steady employ and the highest wages will be given . . . were wanted immediately."[6] M. Gillespie, dressmaker, "wanted immediately [in 1827] several persons as apprentices."[7]

The fourth stage of the dressmaking industry, the merchant dressmaker and milliner, is typified by "Eliza Bancroft [who] Respectfully informs her Friends and the Public that she has received a fresh supply of Fancy Goods Suitable for the Season—among which are black and white cambrics, black silk shawls . . . silk for Bonnets, and Gowns . . . She continues the Mantua Making and Millinery Business in the newest fashions."[8] Thus, before the War of 1812 there was developed the prototype of the modern woman's furnishings houses, which combine under one business management the three departments: (1) The sales department of materials and furnishings for women's clothing; (2) custom dressmaking; and (3) millinery.

Although the development on a large scale of the big furnishing houses with their millinery and dressmaking departments and the necessary capital gave the supremacy to men as "better prepared for reasoning and calculations,"[1] the woman European importer, wholesale dealer, and merchant dressmaker appeared in Boston before the middle of the nineteenth century.

---

[1] Boston Daily Advertiser, Mar. 24, 1813.
[2] Independent Chronicle, July 23, 1800.
[3] Bunker Hill Aurora, May 6, 1865.
[4] Boston Commercial Gazette, June 10, 17, 24, July 1, 1799.
[5] Columbus Centinel, Mar. 5, 1800.
[6] [Boston] Evening Gazette, Mar. 15, 1828.
[7] Ibid., Sept. 15, 1827.
[8] National Aegis, Apr. 8, 1812.

A woman merchant dressmaker and importer of European models was established in Boston by 1840, who arranged "openings" for the display of the latest styles and models to the dressmakers of the surrounding country, thus exhibiting a prototype of the movement for "democratization" of styles in America, which is now centered almost exclusively in New York City and has practically disappeared from Boston.

Women conducted stores which carried a stock of materials and of clothing, not only in the large ports but in many surrounding cities. Grace Smith in Norfolk,[2] Mrs. Clapp "at the Noted Store" in Dedham,[3] "Mrs. Charlotte H. White . . . [who] . . . has opened a shop in the dwelling House of Deacon Tilly Flint" in Rutland,[4] advertised "a general assortment of English goods." Imports in the large cities increased in value, and merchants in Boston offered for sale "a complete assortment of new and fashionable Goods . . . Rich ball dresses, Lace dresses, Embroidered French cambric and sheer muslin dresses, India Muslin dresses, Mantles, Silk, and gold dotted muslin for dresses . . .[5] a few splendid French embroidered Muslin and Cambrick Dresses, worth from 35 to 55 dollars. These being lately imported, are the most modern style and truly elegant."[6] Stephen Rhoads, in November, 1827, had received by the London Packet, "1 case of Ladies Imperial Pelerines, Sable, and Ermine, a very rich article."[7]

The influx of European goods and increasing luxury in the first half of the nineteenth century had, however, met opposition from many quarters. The manufacturers and statesmen of New England in the early nineteenth century vigorously resisted European importations of manufactured articles. The remedy urged was increasing taxation and the climax was reached in the tariff of 1828.

Apart from the political agitation, many opposed the trend toward extravagance, and especially as manifested in the introduction of European clothes and ornaments and the submission to European fashions, on grounds of duty, morality, and patriotism. There is little evidence that this opposition produced any particular effect.

The last half of the nineteenth century contributed the final phases of development in the women's clothing trade—the wholesale manufacture of women's machine-made clothing with the resultant so-called sweating system, and the custom ready-to-wear garments.

---

[1] France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, 1896, p. 395.

[2] Norfolk Repository, May 28, 1805.

[3] Ibid., June 4, 1805.

[4] National Aegis, July 3, 1805.

[5] The Evening Gazette, Jan. 6, 1827.

[6] Ibid., Oct. 6, 1827.

[7] The Evening Gazette, Nov. 15, 1827, Oct. 20, 1827, Aug. 2, 1828.

Thus by the end of the century all stages of development existed side by side. The large commercialized shop and department store of the latter part of the nineteenth century represent a stage of evolution in degree purely. They existed in the eighteenth century. They increased in size, amount of capital invested, and stock carried, in the nineteenth century. But the last stage of development, wholesale manufacture, originated and developed rapidly in the latter half of the nineteenth century. Wholesale manufacture of men's clothing existed to some extent in the first half of the century. The manufacture of women's clothing on a large scale in advance of the orders of prospective buyers involved a more difficult problem. A most serious obstacle to making up large quantities of women's clothing in varying sizes and in like and in different materials after a single model appeared from the beginning. Two factors, which M. du Maroussem calls "la coquetterie feminine,"[1] complicated the development—the attitude of the clientele, which insists that no two gowns shall be alike, necessitating infinite variations, and the desire for an adaptation of the fashion, style, and material of a garment to the particular form and personal characteristics of the individual woman. This individualization, which constitutes the radical contrast between masculine and feminine dress, was still further complicated by the rapidly changing styles in women's clothing. Each client required a garment adapted peculiarly to herself, but it must conform in its general lines to the exigencies of the general fashion, which in turn are uncertain because dependent on "the universal suffrage of the ladies of fashion." "How then," says M. du Maroussem, "in view of this unconquerable economic demand, manufacture large stocks in advance, as is the custom established in the manufacture of men's ready-made clothing? The process must be transformed." The promoters of the new idea sought to separate the common elements, to some extent, from the most diversified styles, and apply to them, as an invariable basis of the system, the anticipated fashion.[2] The promulgation of the styles is effected through two mediums: The creation of models in picture form, which are spread broadcast through special fashion publications, and the creation of models in the actual form of costumes made in advance and sold with the purpose of making reproductions and variations from them. Paris controls this phase of the trade. The United States has always looked to western Europe for initiative in style of dress. Certain large houses in some of the largest American cities create "Americanized styles" and models, but always in accordance with the decrees laid down by Paris leaders.

---

[1] France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 393 et seq. See also Le Development de la Fabrique et le travail à domicile dans les Industries de l'Habillement, par A. Alftalion. Paris, 1906.

[2] See discussion by M. du Maroussem. France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 393 et seq.

The development of the "ready-made," using the word in its vernacular sense, was a matter of some four decades. Ready-made wear had been imported from Europe in colonial times, but wholesale ready-made clothing produced in large quantities in many sizes and varieties of materials showed a comparatively slow evolution. No attempt was made at first to invade the sphere of the fitted garment. With the introduction of the sewing machine in 1850, however, ready-made clothing soon took rapid strides in the looser and more masculine type of wear, such as outside cloaks, coats, and mantillas, as well as in corsets and similar furnishing goods, hoop skirts, and millinery.

The census of 1860 reported—"This branch of the domestic clothing trade, which thus employs nearly half a million dollars in capital, and with the labor of less than 1,600 hands, produced upwards of two and a quarter million dollars' worth of cloaks and mantillas annually, is one of quite recent growth, and has received its principal development within the ten or fifteen years preceding the last census. The manufacture has its principal seat in New York, which has 15 large establishments, one of which employs 100 girls and makes goods to the value of $120,000 per annum. Two others employ 70 and 40 hands, respectively, and make each about $100,000 worth. The whole value of cloaks and mantillas made in that city in 1860 was $618,400. A large manufacturer in that city who commenced business in 1849 was the first to introduce sewing machines in the business, as well as the first to employ young women in the retail sales department. The largest establishment in Boston also employs 100 females and makes $150,000 worth of ladies' cloaks and mantillas annually, while two others in that city employ each about 75 hands, and manufacture to the value of $125,000 each. All but $13,000 of the product in Massachusetts was made by 10 factories in Boston." [1]

During the four decades from 1860 to 1900 the ready-made-garment manufacturers invaded every branch of the women's clothing trade. Increasing development of skill and perfection of machinery and workmanship have made possible the manufacture of close-fitting garments. The development of popular taste and demand through the show windows and salesrooms of retail dealers has justified the manufacture of great quantities of stock. The decreased cost of the ready-made has resulted in its world-wide adoption. In the early eighties the manufacturers began making ladies' suits, in the nineties lingerie, soon to be followed by shirt waists, fancy waists, skirts, gowns of all sorts and materials, and finally neckwear on a large scale.

With increasing perfection and popularity of the ready-made, there has appeared a new phase in the development of the trade—the ready-to-wear, which represents the last resort of custom dressmakers and tailors to combat the ready-made. Exclusive large custom houses still refuse to recognize or carry the ready-made, but they are attempting to cater to public demand for the completed gown or garments at short notice by making up stock in advance. "Ready-to-wear," said a member of such a firm, "is a single gown made up on a single exclusive pattern in advance of the specific order of a customer, but offering an individuality and exclusiveness of style in the finished product which the ready-made in its many duplications in various sizes can not do." This development has brought in its wake two most important results—first, the partial abolition of the necessity for late rush orders, as the customer can often find ready for use a gown suitable for her needs; and second, the partial alleviation of the slack season, as the workers fill in the time in which they are not busy with orders of customers by making up "stock." This ready-to-wear is offered for sale to customers wishing gowns on short notice, or preferring the finished product to the waste of time and energy and the uncertainty of satisfactory results sometimes experienced in custom work.

---

[1] United States Census, 1860. Manufactures, p. lxxxiii.

The attempt to cater to all the various needs of the clientele is resulting in many combinations, either of the two branches, custom and ready-to-wear, or of the three branches, custom, ready-to-wear, and ready-made. Many a custom tailor or dressmaker of a few decades ago has now been transformed into the head of a large establishment or has formed a partnership or corporation combining the two or three branches of the trade. Meanwhile the increasing tendency toward centralization and the competition of two powerful factors—the manufacturing and the combination establishments with their large capital and unlimited credit—have rapidly diminished the field of opportunity for the small custom dressmaker. She is brought face to face with the three great problems of modern industry—competition, capital, and the labor problem. The ready-made, with its increasingly fine product, good style, and low cost due to the manufacture of large quantities under a highly developed business system and administration, encroaches on the field from the one side; the large combination establishments encroach on the other side in two ways, for first, with practically unlimited capital they are able to work on a large scale with the highest degree of business finesse, to employ time and labor saving machinery, and to secure experts, who, with their originality and initiative, can give a certain characteristic exclusiveness in style and taste; second, because of the extensive scope of their business some of the more far-seeing firms so arrange their work as to eliminate to a large extent the seasonal aspect of the trade, thus attracting the workers and aggravating the labor problem for the small dressmaker.

On the other hand, there are certain important influences reacting in favor of custom work and of the small dressmaker. Custom work will probably always retain its superiority of workmanship—i. e., fine handwork, accuracy, and fine finishing. It will also meet and solve most effectively the peculiar needs of the individual. For these two reasons every stage of custom work can still retain its position in the labor world. The dressmaker going "out by the day" obviates for herself the problem of large capital and irregular payment of customers and meets the needs of customers who still insist on custom work in lingerie, children's wear, house dresses, and even the more elaborate gowns.

In spite of the problems enumerated above, the small dressmaker also has certain advantages which cause her competition to react on the large establishments. First, the "democratization" of styles effected by the semiannual importation of Parisian models by large New York importers and their "openings," at which all the newest Parisian styles are displayed to their customers (dressmakers) from far and near, enables the smallest (within these limits) as well as the largest dressmaker to give to her customers the newest style. One of the members of an old and well-established firm considered this the greatest menace to the high-class establishments. Formerly, he said, only the large establishments who could send a representative abroad twice a year could give exclusive and original styles to their customers. Now the smallest dressmaker of ability and ingenuity is enabled to give exactly as good style at smaller cost because of her lower expenses. Second, the small dressmaker gives her own talent, taste, ingenuity, and originality to the making of her gowns with no financial expenditure for this service. The large firm pays one or more head women salaries ranging from $1,000 to $10,000 a year for this contribution, but the small dressmaker not only furnishes this herself but by personal supervision of the workroom effects greater economy of time and materials and the more interested cooperation of her employees. The small dressmaker has a more steady and regular clientele, enabling many of the more far-seeing ones to meet in a fairly satisfactory manner the seasonal problem. She is not expected nor does she attempt to maintain the standard of luxury and spaciousness of quarters, location of establishment, etc., required of the larger firms, with their resultant heavy expenditure.

Thus a nice balance of opposing, interacting, and reacting forces still makes possible at the present day the existence side by side of all stages of the clothing trade from the primitive to the most modern and scientifically developed.

CHAPTER II.

THE DRESSMAKING TRADE OF TO-DAY.

The dressmaking trade of the twentieth century is developing along three diverging lines: (1) In the increasing growth of the large wholesale manufacturers at the expense of the custom trade; (2) in the development of the large custom shop and decline of the small; and (3) paradoxically, in the comparatively large place occupied by the home dressmaker and day worker. Directors of vocational education and guidance must, therefore, know the industrial trend and predominant types in the neighborhoods to which they cater to solve their problem satisfactorily.

The manufacture of ready-made clothing has grown by leaps and bounds during the last two decades, increasing more than 100 per cent in practically every phase during the decade 1890 to 1900, and in some details to an even more phenomenal extent during the decade 1900 to 1910.

Table 1, immediately following, shows the development of the two branches, wholesale manufacturing and custom dressmaking, during the decade 1890–1900, while Table 2 shows the growth of the wholesale manufacturing trade during the decade 1899–1909.

TABLE 1.—DEVELOPMENT OF WOMEN'S CLOTHING TRADE, FACTORY PRODUCT AND CUSTOM DRESSMAKING, IN THE UNITED STATES DURING THE DECADE 1890–1900.[1]

[Based on United States Census, 1900, Vol. IX, Manufactures, Pt. III, p. 302.]

Item.	Factory product.			Custom dressmaking.			
	1890	1900	Per cent increase, 1900 over 1890.	1890	1900	Per cent increase, 1900 over 1890.	Per cent decrease, 1900 from 1890.
Number of establishments	1,224	2,701	120.7	19,587	14,479	....	26.1
Capital	$21,259,528	$48,431,544	127.8	$12,883,097	$13,815,221	7.2	....
Wage earners, average number	39,149	83,739	113.9	48,613	45,595	....	6.2
Men, 16 years and over	12,963	26,109	101.4	1,056	4,379	314.7	....
Women, 16 years and over	25,913	56,866	119.5	47,164	40,835	....	13.4
Children under 16 years	273	764	179.9	393	381	....	3.1
Total wages	$15,428,272	$32,586,101	111.2	$13,145,734	$14,352,453	9.2	....
Men	$7,386,955	$15,790,572	113.8	$616,438	$2,943,175	377.5	....
Women	$7,994,203	$16,675,390	108.6	$12,482,362	$11,363,683	....	9.0
Children	$47,114	$120,139	155.0	$46,934	$45,595	....	2.9
Cost of materials used	$34,277,219	$84,704,592	147.1	$23,393,829	$16,503,754	....	29.5
Value of products	$68,164,019	$159,339,539	138.8	$57,071,732	[2] $48,356,034	....	15.3

---

[1] Factory product covers all clothing manufactured for the wholesale trade; custom dressmaking deals with product made for retail orders.

[2] Includes custom work and repairing.

TABLE 2.—DEVELOPMENT OF WOMEN'S CLOTHING TRADE, FACTORY PRODUCT, IN THE UNITED STATES DURING THE DECADE 1899-1909.[1]

[Based on the United States Census, 1910, Vol. VIII, Manufactures, p. 509.]

Item.	1899	1909	Per cent increase, 1909 over 1899.
Number of establishments	2,701	4,558	68.8
Capital	$48,432,000	$129,301,000	167.0
Wage earners, average number	83,739	153,743	83.6
Total wages	$32,586,000	$78,568,000	141.1
Salaried employees, total number	6,715	18,796	179.9
Total salaries	$6,574,000	$20,418,000	210.6
Cost of materials used	$84,705,000	$208,788,000	146.5
Value of product	$159,340,000	$384,752,000	141.5

[1] In 1900 the chief statistician recommended the abandonment of all inquiries into hand trades because of the impossibility of securing accurate and complete returns and the high cost for dubious returns.

In the manufacturing branch it is evident that the increase in capital and wages during the second decade was greater than in the first, but a corresponding increase does not appear in the number of establishments or workers. This indicates a process of consolidation and the development of the larger shop. The greater increase in wages than in number of wage earners indicates the employment of more highly skilled workers. This is also emphasized in the 179.9 per cent increase in salaried officials and 210.6 per cent increase in total salaries paid.

In the first decade while the manufacturing branch of the women's clothing trade showed an increase of 120.7 per cent in the number of establishments, 113.9 per cent in average number of wage earners, 147.1 per cent in cost of materials and 138.8 per cent in value of product, custom dressmaking decreased in all these phases of the trade. But while custom dressmaking lagged far behind in the race during this decade, the decrease in the number of establishments (26.1 per cent) was out of all proportion to the 6.2 per cent decline in the number of wage earners. During the same period the amount of capital increased 7.2 per cent and the total wages 9.2 per cent, all this indicating consolidation or the development of the large shop.[1]

The development and competition of the factory product has brought about a very uneven distribution of product between the factory and custom dressmaker. The census of 1910 describes women's clothing, factory product, as comprising "not only complete suits, but also dresses, skirts, petticoats, kimonos, dressing sacques, wrappers, jackets, cloaks, capes, underwear, infants' clothing, shirt waists, linings, dress stays, belts, dress shields, and similar articles."[2] Custom dressmaking is, on the other hand, being increasingly limited to only the high-class, exclusive product; fancy house dresses, street suits, and fancy waists, which, because of individual style and exclusive patterns and materials, can compete with the cheaper ready-made product.

---

[1] See Table 1.

[2] United States Census, 1910. Manufactures, Vol. VIII, p. 398.

Although the factory branch of the trade is largely centered in New York, the value of its product representing 70.8 per cent of the total output of the United States,[1] the clothing trade throughout the country feels the effect of its competition through the distribution of New York's product.

This increase in the importance of the factory branch is bringing about new conditions and necessitating new adjustments within the custom branch of the trade. Four great problems—capital, competition, scarcity of skilled labor, and seasonal fluctuation—must be met by shops of all types, and the degree to which they are or are not solved determines the survival of the type. Out of the struggle is emerging, on the one side, the large custom shop and, on the other, the domestic or day worker, with the resultant submergence of the small shop.

The evolution of the large establishment in custom as in factory dressmaking has undoubtedly continued during the first decade of the twentieth century, though the lack of census statistics makes comparison impossible. Members of the trade, both in Boston and in other cities, almost unanimously testify to the increasing difficulty the small shop finds in competing on the one side with the large custom establishments, with their prestige and almost unlimited capital, and on the other with the wholesale manufacturing establishments turning out a cheaper product. Many who formerly conducted a shop find it more profitable to work on a salary or go out by the day. A head dressmaker of a large, fashionable shop in Boston, receiving $50 a week, had for five or six years conducted a shop with a force of 20 to 30 workers, but could not meet the problem of capital. A Worcester dressmaker who used to conduct a shop abandoned it because of the scarcity of good workers and now takes in only such work as she can do herself. Many of the smaller dressmakers are closing their shops because of the difficulty of competing with the large custom and ready-made establishments and are going out by the day or taking only such work as they can do alone.

The growth of the wholesale manufacture of women's clothing is clearly shown by the census, and the development of the large custom dressmaking shop, though not so easily proved, is evident. It is more difficult to ascertain the numbers and importance of dressmakers working in their own homes or going out by the day, yet there is reason to believe that these constitute a large proportion of the workers in the trade, except perhaps in large cities where dressmaking is highly industrialized. Although the census gives no statistics concerning these workers, a comparison of its data in two different reports may throw some light upon their numbers. In the special report on occupations of women (based on the population schedules) the number of dressmakers 16 years of age and over in the United States is given as 338,144.[1] In the report on manufactures for the same year (based on establishment schedules) the number of women aged 16 or over employed in custom dressmaking is given as 40,835; in addition, 908 salaried officials are given, and the number of establishments is placed at 14,479.[2] If it be assumed that each establishment had at least one proprietor, and if these be added to the salaried officials and others engaged in dressmaking, the total is 56,222. Subtracting this figure from the 338,144, given in Statistics of Women at Work as representing the number of dressmakers in the United States, there would seem to be 281,922 women engaged in dressmaking who are not classed as such in the census report on manufactures. It can not be assumed that all of these are women who make dresses at home or go out by the day; various causes may account for the difference between the two reports. Nevertheless, the figures are significant and give some idea of the proportion the domestic dressmaker forms of the total workers in the trade.

---

[1] Calculated from data from United States Census, 1910. Manufactures, Vol. VIII, pp. 574, 575.

The difficulty of determining the relative importance of different types of dressmaking is much increased by the vagueness with which the term "dressmaker" is used. Thus, the United States census for 1900 reported 6,312 dressmakers in Boston.[3] But what is the definition of "dressmakers" and how are they distinguished from seamstresses or tailoresses? The census does not enlighten us. The census figures by occupations, moreover, include both employers and employees, while the employees include not only the skilled workers who might legitimately be called "dressmakers," but a great many "seamstresses" or plain sewers who do the finishing work on the gowns. These workers may have reported themselves as "dressmakers" or "seamstresses" to the census enumerators. Others undoubtedly reported themselves as dressmakers who were not; so the statistics are far from satisfactory.

The term "dressmaker" is so vague and so inaccurately applied that women are frequently listed as dressmakers in the city directory year after year who never have done dressmaking for others or who work only occasionally. A Mrs. G. is summarized on the credit list of a large store in Worcester as follows: "Above is not a dressmaker; never was. Said she was not when questioned, February 1, '07." Yet she was still so listed in the city directory for 1909.

---

[1] Special Reports of the Census Office, 1900. Statistics of Women at Work, p. 70.

[2] United States Census, 1900. Manufactures, Vol. IX, Pt. III, p. 302.

[3] Special Reports of the Census Office, 1900. Statistics of Women at Work, p. 222.

Others who do some dressmaking may not be reported. A housekeeper, occasionally finding spare time in the spring or fall, goes into a large dressmaking shop for a month in the busy season. She is not a dressmaker, yet may be put under that heading by the census enumerator. Because of the lack of a fixed definition of the terms "dressmaking" and "dressmaker," statistics by occupation are of little value for practical or educational purposes.

In the absence of complete census returns we are forced to a study of local conditions to discover the predominant types in the trade. The Boston city directory records 696 "mistress" dressmakers in 1910, of whom only 240, or about one-third, can be regarded as regular employers. Nearly two-thirds of those recorded as independent dressmakers by the directory are day or home workers, showing the surprising extent to which the women's clothing trade still retains its domestic characteristics in a city like Boston.

The following table shows the extent of custom dressmaking in the cities studied:

TABLE 3.—EXTENT OF CUSTOM DRESSMAKING IN 5 CITIES IN MASSACHUSETTS.

City.	Population in 1910.[1]	Rank according to size of city.	Number of establishments in cities, based on specified sources.				Number employed, based on specified sources.					
			United States Census, 1900.[2]	City directory, 1910.	Factory inspector's report, 1910.	Investigator's estimate, 1910.	United States Census, 1900.	Factory inspector's report, 1910.			Number reported in shops visited.	
								Men.	Women.	Girls.	Men.	Women.
Boston	670,585	1	271	696	181	240	1,605	97	1,926	40	26	2,032
Worcester	145,986	2	56	398	(3)	18	645	(3)	(3)	......	......	201
Lowell	106,294	4	155	217	(3)	33	327	......	(3)	......	......	50
Cambridge	104,839	5	15	167	(3)	12	24	......	(3)	......	......	54
Somerville	77,236	10	16	149	(3)	2	21	......	(3)	......	......	10

[1] United States Census, 1910. Population, Vol. II, p. 862.

[2] The United States census of 1900 includes only the shop having an annual product of $500 or more. United States Census, 1900, Manufactures, Part I, pp. xxxix and ccxlii–ccxlv. The census of 1910 excludes custom dressmaking entirely from the reports on manufactures.

[3] Not reported.

While in Boston only about one-third of the dressmakers given in the city directory were employers, the proportion was even smaller in the other cities, ranging from 15.2 per cent in Lowell to 1.3 per cent in Somerville. This difference is mainly due to the proximity of the other cities to Boston, which makes large shops not only unnecessary but impracticable. The large fashionable custom shops of Boston with extensive capital, credit, prestige, and close connection with European centers of fashion are invincible competitors in the high-class trade. The large department stores of Boston offering ready-made clothing compete with the middle and low-class establishments. Only the simpler stages of the trade, therefore, are found in Massachusetts outside of Boston.[1]

In Worcester, which ranks second in population in Massachusetts, only 18 of the 398 dressmakers listed in the city directory could be classed as regular employers. Fully 95 per cent were home or day workers.[2] Lowell, though ranking as the fourth city in the State, is a great textile center, with absentee owners and a large mill population, and has developed only the simple stages of the dressmaking trade. Only 33 mistress dressmakers were found on investigation.[3] In Cambridge, a residence and manufacturing city with a population of more than 100,000, only about a dozen dressmakers could be classed as employers and only six of these employed six or more girls. In Somerville, primarily a residential suburban city with a population of 77,236, only one dressmaker could be found who employed three or four girls, and one with six or eight girls. The rest were home or day workers, many sewing only occasionally for friends and others working in Boston shops.

The relative importance in the cities studied of day and home workers, as compared with custom dressmakers, is shown in the following table:

TABLE 4.—TYPES OF DRESSMAKERS IN 5 CITIES IN MASSACHUSETTS.

Type of dressmakers.	Boston.		Worcester.		Lowell.		Cambridge.		Somerville.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Day workers and home dressmakers[1]	456	65.5	380	95.5	184	84.8	155	92.8	147	98.7	1,322	81.3
Custom dressmakers[1]	240	34.5	18	4.5	33	15.2	12	7.2	2	1.3	305	18.7
Total[2]	696	100.0	398	100.0	217	100.0	167	100.0	149	100.0	1,627	100.0

[1] Investigator's estimate.

[2] According to city directories, 1910.

From this table it appears that the "custom dressmaker," using the term in its economic sense to indicate the "mistress dressmaker," who conducts a shop of her own and makes up the gowns of her customers in accordance with their specific demands, forms a very small proportion, only 34 per cent of those reporting themselves as dressmakers in Boston, 15 per cent in Lowell, 7 per cent in Cambridge, less than 5 per cent in Worcester, and about 1 per cent in Somerville. The home and day workers, who form from 85 to 99 per cent of the independent dressmakers in Worcester, Lowell, Cambridge, and Somerville and 66 per cent of those in Boston, never appear in official statistics for the trade, yet a knowledge of the opportunities and demands for such workers is essential to educators and vocational advisers.

---

[1] The dressmaking trade of Worcester, Cambridge, and Somerville was studied in connection with a larger investigation on the industrial opportunities for women which was made by the research department for the State board of education. See United States Bureau of Education Bulletin No. 17, A Trade School for Girls: A Preliminary Investigation in a Typical Manufacturing City, Worcester, Massachusetts. 1913.

[2] This statement was made by the credit clerk in the largest department store in Worcester, who turned all credit records over to the investigator. It was substantiated by personal investigation.

[3] The trade in Lowell was studied under the direction of the writer by Miss Jennie Clement, a senior at Simmons College.

Custom dressmaking, like the factory branch, shows a tendency to concentrate in cities where large demands necessitate business and industrial organization, and here only are the various types of shops and methods of production found. Here seven distinct systems of economic production are seen in (1) the home dressmaker who sews for herself and family, (2) the dressmaker who goes out by the day, (3) the "private dressmaker," (4) the medium-sized shop of the transition stage where the first rudiments of division of labor appear, (5) the large shop of specialized workers and marked division of labor, (6) the commercialized shop, and (7) the manufacturing dressmaking shop. These seven stages show ascending stages of industrial evolution (1) in place of production, (2) in method of production, and (3) in relation between producer and consumer. The first stages of the trade show a close relation between place of production and the home, a simple system of production where the dressmaker and her small force of general helpers work side by side, and a close relation between producer and consumer. The more advanced stages show continuous evolution toward more highly specialized industrial organization. A description of these stages affords a picture of the trade as it exists to-day.

1. THE FAMILY DRESSMAKER.

The family system, the most primitive and simplest form of production, based on the family as an economic unit, still exists in the twentieth century and can be found in rural parts of the United States. The family produces for family needs (at least, those of the feminine element) and producer and consumer are identical. It is interesting to observe in this connection, however, that while dresses and hats can still be made at home by the family, shoes, stockings, knit underwear, etc., have been entirely monopolized by wholesale manufacturing.

2. THE JOURNEYMAN DRESSMAKER.

The dressmaker who goes out by the day typifies the next stage of evolution, the so-called help or hire system, in which the industry has developed beyond the capacity of the family group, and assistance is called in from outside sources. The producer goes to the home of the consumer where she makes up the materials owned and furnished by the client in accordance with her orders and sometimes with her cooperation. She works "by the day," the wage usually including luncheon and sometimes dinner.[1] This, then, is but one step in advance of the family system. The producer who supplies the labor force is not a member of the family, so that producer and consumer are differentiated, but ownership of the work place, the raw materials and the instruments of production are still vested in the family, which also retains personal supervision of the work.

In spite of its simplicity as an economic unit of production, this primitive stage presents a wide variation in the character and ability of the workers as well as in the kind of work done and shows a resultant tendency toward specialization. Some day workers act only as "seamstresses" for the making of children's clothing, lingerie, and simple house dresses, receiving from $1 to $1.50 a day. Others go out by the day as "full-fledged dressmakers" who can be intrusted with entire charge of the making of any part of the customer's wardrobe. Such work requires not only initiative and ability, but knowledge and experience in designing, cutting, and making, and consequently commands a corresponding compensation. A capable and trustworthy dressmaker of this class can command from $2 to $4 a day. A good worker soon acquires an extensive clientele and the demand often far exceeds her ability to supply it, so she must either work beyond the regular eight and one-half or nine hour day, or become herself an employer, with one or more helpers at $1 or $1.50 a day.

The journeyman stage in the dressmaking trade has also an important place in England and France. Even in Paris, the world's center of the women's clothing trade, a proprietor of one of the large shops maintained that "the very great number of home dressmakers and dressmakers who go out by the day at three and four francs [58 and 77 cents] (besides meals) and even two francs and two francs fifty [39 and 48 cents]," proved one of the three greatest sources of competition for the custom dressmaker. She insisted that "there is an increase of these workers, who penetrate even into the rich clientele for house dresses and '*transformations*'."[2]

The custom system in which the mistress dressmaker establishes herself in her own shop is a natural development from the journeyman stage and takes the form of either (1) the "private dressmaker" with a few general assistants, (2) the transition stage seen in the small shop with the beginnings of division of labor and differentiation between employer and worker, or, (3) the specialized shop in which work and workers are highly specialized.

---

[1] Similar conditions are reported for the day workers in Paris. See La Petite Industrie, Vol. II, Le Vêtement à Paris, pp. 406–408. France, Office du Travail.

[2] Op. cit., p. 447.

3. THE PRIVATE DRESSMAKER.

As the "day worker" or perhaps "the head woman"[1] of a larger shop acquires a sufficiently wide acquaintance and experience to indulge her aspiration to become a "mistress dressmaker," the first stage of custom production appears. This class of workers is increased by the young woman or widow thrown upon her own resources who does not wish to go out by the day or the wife who wishes to augment her husband's income, and can not withdraw from the responsibilities of the home.[2] In this stage the dressmaker has become an independent producer, provides her own work room and instruments of production, and may either work alone or employ from one to six assistants. But the close personal relation with her customers, who are almost wholly relatives and friends, has given her the trade term "private dressmaker."

The following table shows the numerical importance of the private dressmaker in the cities studied:

TABLE 5.—NUMBER AND PER CENT OF SHOPS OF SPECIFIED STAGES OF CUSTOM DRESSMAKING IN 5 CITIES IN MASSACHUSETTS.

Stage of dressmaking.	Boston.		Worcester.		Lowell.		Cambridge.		Somerville.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Private dressmakers	111	46.3	[1] 6	33.3	28	84.9	[1] 8	66.7	1	50.0	154	50.5
Transition	58	24.2	4	22.2	4	12.1	4	33.3	1	50.0	71	23.3
Specialization	63	26.2	8	44.4	1	3.0	......	......	......	......	72	23.6
Commercial	8	3.3	......	......	......	......	......	......	......	......	8	2.6
Total	240	100.0	18	100.0	33	100.0	12	100.0	2	100.0	305	100.0

[1] The larger proportion of private dressmakers do not show here because those employing only casual workers were not visited.

It is significant that the private dressmaker constitutes the largest proportion of "mistress dressmakers" in all five cities studied, ranging from one-third in Worcester to more than four-fifths in Lowell. Almost one-half (46.3 per cent) of the custom dressmakers of Boston came within this elementary stage of the trade.

While this first phase of the custom system shows some variation in the place of production and in the relation between producer and consumer, the system is fairly uniform.[3] The shop of the private dressmaker shows still a close relation to the home, and private dressmakers were discovered in a single room in a house or in small suites of rooms, combining living and business quarters, and tucked away in the back and on the upper floors of a business building. A few had one or two room shops in the business district, which were used for business purposes only. The majority had no sign or business advertisement of any sort, depending wholly on the personal relation with customers to spread their fame. In Cambridge and Somerville all dressmakers carried on their business in their homes; but in Boston, Worcester, and Lowell more variation was discovered. But 13 of the 27 visited in Boston combined living and working quarters, while 5 out of 6 employing regular help in Worcester, and 4 out of 9 in Lowell, maintained the shop in the home.[1]

---

[1] See schedules presented by Office du Travail (France). La Petite Industrie, Vol. II, Le Vêtement à Paris, pp. 414, 417, 419.

[2] Op. cit., pp. 410, 411, 412.

[3] Op. cit., pp. 409, 523. Also Makers of our Clothes, Meyer and Black, pp. 90, 91.

The workroom of the private dressmaker in the home is usually large, well lighted, and adequate for the small force employed; but a few very small workrooms were discovered in a business block where the rents were high. In some cases a small separate room and in others a single room divided by curtains constituted the workroom, in which cases the light and ventilation were insufficient. In this system of production the dressmaker is herself still the actual producer. She meets the customers, plans and designs the gowns (with or without the advice of the customer), cuts, fits, sews, and does the main part of the work. The majority of private dressmakers in the five cities studied either employed no helpers or took on a casual worker, usually an older woman, in the rush season, preferring the older seamstresses because they required less supervision and direction. The professional dressmaker, however, who has a definite clientele and does a fairly high class of work usually employs from two to six helpers, and prefers young girls just acquiring the trade. The younger workers, they say, bring a freshness and originality into the work, but after several years' experience the more capable are ready for promotion beyond the opportunities offered in a small shop. "My girls must go somewhere else when they have gotten beyond the $9 stage," said one dressmaker. "I have no need for the specialized or expert worker."

According to the number of their employees, the private dressmakers visited in each city were grouped as follows:

TABLE 6.—SIZE OF WORKING FORCE OF PRIVATE DRESSMAKERS VISITED IN 5 CITIES IN MASSACHUSETTS.

Size of force.	Number of shops having specified number of workers in—					
	Boston.	Worcester.	Cambridge.	Lowell.	Somerville.	Total.
No workers	1	1			11	[2] 13
1 to 3 workers	15	4	3	1	1	24
4 to 6 workers	11	2	2	6		21
7 to 8 workers			1	2	1	4
Total	27	7	6	9	13	62

---

[1] See similar state of affairs quoted in schedules in La Petite Industrie, Vol. II, Le Vêtement à Paris, pp. 409, 414, 416, 418. France, Office du Travail.

[2] Not included in Table 5.

The beginner has a good opportunity for learning her trade in the shop of the private dressmaker, first, because she works under the immediate supervision of her employer, and second, because as the work is not highly specialized she is not confined to one process. The organization of the force is simple and informal, the workers sitting about the employer, who does the skilled part of the work and turns it over to the helpers, finishers, or plain sewers, by whatever term they may be called, for the simpler processes, such as sewing on hooks, eyes, and buttons, making button holes, collars, ornaments for trimmings, basting and seaming up linings, sewing and overcasting straight seams, and putting on braid. Since there is little division of work, the young learner under the supervision of her employer has opportunity to acquire general training and experience on all parts of the gown and to see the relation of the parts to each other.

The wage scale of the private dressmaker commonly ranges from \$3 to \$9. The young learner usually earns from \$3 to \$5 a week and the older or more experienced worker from \$6 to \$9. This wage scale remains the same for this type of worker, the plain sewer, throughout all the stages of her trade.

The business relation between producer and consumer is simple. The consumer comes to the producer instead of vice versa as in the journeyman stage, and in the smaller shops may provide all materials and trimmings and determine in detail how the gown shall be made. In the more advanced stages, however, the producer furnishes some or all of the materials and turns over the finished product to the consumer, thus profiting by the rebate (10 per cent in Boston) allowed by the furnishing stores.[1] In the private dressmaker stage, therefore, producer and consumer are removed one step farther in that the workroom, instruments of production, and, in the more advanced stages, the materials are provided by the producer instead of by the consumer. The private dressmaker, however, still remains in varying degrees the worker, according as she does or does not delegate the work to her helpers.

4. THE DRESSMAKER OF THE TRANSITION STAGE.

The second stage of custom work is distinctly one of transition from the primitive stages of close personal relationship between producer and consumer, and identity of employer and worker, to the more highly developed stages involving increasing division of labor. In this stage are seen the beginnings of differentiation between contractor and producer, employer and worker, and gradations among the workers according to their skill, capacity, and wage. As the trade grows, the employer's time is increasingly occupied with customers and buying on the one side, and with the greater amount of work to be arranged and supervised on the other. So with decreasing time and increasing work, the employer must delegate some of her work to "heads," and the advantage of more specialization of workers and further division of labor becomes apparent.

---

[1] M. du Maroussem says the large furnishing stores of Paris allow 2 to 3 per cent rebate to dressmakers. France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, pp. 426, 441.

The dressmaker of this stage occupies a smaller place in the trade, forming about one-fourth of those studied in Boston and Worcester, one-third in Cambridge, and one-eighth in Lowell.[1] In Cambridge and Somerville and, with but one exception, in Lowell, this is the highest stage of development found in the trade. There are about 60 establishments of this type in Boston, 4 each in Worcester, Cambridge, and Lowell, and 1 in Somerville. The dressmakers in Cambridge, Lowell, and Somerville carry on the business in the home. The four in Worcester had shops in a business block, and only five of the twenty-seven visited in Boston combine home and shop. The majority of the shops consist of suites of two rooms, the reception and fitting room and the workroom, located in large business buildings in the business section. Signs on doors and windows advertising the place and kind of work now become more common. The private dressmaker works for personal friends and relatives. The dressmaker of the stage of transition seeks the patronage of a more general public. She therefore moves her shop to a more conspicuous and accessible location and seeks to attract the attention of the casual passer-by.

The dressmaker of the transition stage delegates her duties in varying degrees, according to the size of her force and her trade. Although she devotes her time increasingly to the business management and the supervision and direction of the production, she still cuts and fits the gown, and, in the smaller shops, retains in her own hands one or several of the more skilled processes. The degree to which responsibility is delegated in shops of different sizes is illustrated by the following data concerning the working force of two fairly representative shops:

Shop N, with a maximum force of 7 workers, has[2]—
    2 waist girls, of whom—
        1 head waist girl receives $12.
        1 finisher receives $8.
    1 coat girl, who receives $12.
    3 skirt girls, who receive $8, $7, and $5, respectively.
    1 plain sewer, who receives $5.
Shop K, with a maximum force of 11 workers, has—
    4 waist girls, of whom—
        1 head waist girl receives $9.50.
        3 finishers receive $7, $6, and $5, respectively.

---

[1] See Table 5, p. 31.

[2] Based on pay rolls.

1 coat girl, who receives $12.
4 skirt girls, of whom—
  1 head skirt girl receives $14.50.
  3 finishers receive $8, $7, and $6, respectively.
1 errand girl, who receives $1.50.
1 office girl, who receives $8.

In shop N a head waist girl or "draper" drapes the soft, delicate materials on the figure, and must put them together so they will have artistic lines but fit the figure snugly, which requires artistic sense, deftness, and skill. The coat girl works with heavy, so-called "mannish" materials, which she must put together so they will fit the figure but retain the loose mannish effect and have the tailored appearance. Such work requires much greater strength, precision, and accuracy. The employer in this shop still retains charge of the skirts, delegating the simpler processes to the "plain sewers." In shop K the employer has delegated the more skilled work on waists, coats, and skirts to a head girl in each of these sections, and has also intrusted some of the business management to an office girl or bookkeeper. The increased force and trade has necessitated increased delegation of the responsibility to special workers.

As shown in the following table the characteristic working force of the shop of the transition type in Boston ranges from 5 to 15 girls, in Worcester from 5 to 12, in Cambridge and Lowell from 5 to 10, and in Somerville from 5 to 8. Thus, an interesting relation between the size of the force and the city in which it does business is apparent.

TABLE 7.—SIZE OF WORKING FORCE OF DRESSMAKERS OF THE TRANSITION STAGE IN 5 CITIES IN MASSACHUSETTS.

[Based on reports of employers.]

Size of force.	Number of shops having specified number of workers in—					
	Boston.	Worcester.	Lowell.[1]	Cambridge.[1]	Somerville.	Total.
5 to 8 workers	11	2		3	1	17
9 to 12 workers	10	2	1	1		14
13 to 15 workers	4					4
Total	25	4	1	4	1	35

[1] No shop in this city employed more than 10 workers.

About one-half (25) of the shops in the stage of transition in Boston, one of the four in Lowell, and all that could be found in Worcester (4), Cambridge (4), and Somerville (1), were visited.

The wage scale of the shop of the transition stage shows the introduction of the more skilled workers. While the $3 to $9 scale was characteristic of the private dressmaking shop, the $9 to $15 rate appears for the "heads" in the larger shop. The "head girl" in the smaller shop or "the waist draper" or "skirt draper" in the larger shop who assumes any initiative or responsibility receives a weekly wage of $9 to $10. In the Boston shops the majority of waist drapers fall within the $10 to $12 group, the skirt drapers being in the $10 group, since their work does not offer or require so much opportunity for originality of ideas and for artistic and constructive ability. In the suburban cities, where the force is smaller and work perhaps of not so high a grade, the head girl or draper frequently receives $9, and only one instance of a wage of more than $10 was discovered.

TABLE 8.—MAXIMUM WEEKLY WAGE OF TWO CLASSES OF SKILLED WORKERS IN SHOPS OF THE TRANSITION STAGE, BY SIZE OF FORCE.

[Based on reports of 35 employers visited.]

Size of force.	Boston.					Smaller cities.[1]				
	Waist drapers.			Skirt drapers.		Waist drapers.			Skirt drapers.	
	$9	$12	$15	$10	$12	$9	$10	$11	$9	$10
Under 6 workers	......	2	......	2	......	1	......	......	......	1
6 and under 9 workers	1	5	......	6	......	......	5	1	1	6
9 and under 12 workers	......	5	1	4	2	......	......	......	......	......
12 and under 16 workers	1	9	......	10	......	1	1	......	1	1
Total	2	21	1	22	2	2	6	1	2	8

[1] Worcester, Cambridge, Lowell, and Somerville.

The "sleeve girl" when employed in the larger shop of the transition stage receives from $7.50 to $9. She makes the sleeves, but is necessarily subordinate to the head waist girl, who must plan the waist as a whole. One shop in Worcester reported a coat maker at $9 and three in Boston a coat maker at $10 to $15. Three reported so-called forewomen at $15, who cut the materials and supervised the workroom in general, thus anticipating the stage of specialization in which the hired supervisors or heads of the workroom are common.[1] The wage of the skilled workers varies with individual skill and with the amount of responsibility assumed and corresponds to a certain extent to the size of the force, and to the extent to which the employer retains supervision of work and workers. The wage scale for the finishers and plain sewers remains the same as in the private shops.

In the workroom of the shop of the transition stage the young worker's opportunity to acquire her trade is even better than in the shop of the private dressmaker. She still comes under the personal supervision and direction of her employer, gains a fairly general experience, works on a higher class product, and under more systematized management. The work is still fairly regular and continuous, though less so than in the private shop.

---

[1] See also Women's Work in Tailoring and Dressmaking, by Margaret Irwin; Great Britain, Royal Commission on Labor, 1893; Condition of Work in Scotland, by Margaret Irwin, p. 292. Also Women and the Clothing Trade in Amsterdam, by Mme. Treub-Cornaz, Women's Industrial News, London, September, 1901, p. 250, concerning division of labor.

The furnishing by the dressmaker of materials chosen from samples now becomes the more common method of doing business. This affords a distinct profit to the dressmaker in the rebates allowed by furnishing houses, but is counterbalanced by the necessity of increased capital and credit. A large force of more specialized and consequently more highly paid help necessitates heavier expenses and the business system necessitates large purchases in advance. As a result the problem of capital now assumes increasing proportions.

5. THE DRESSMAKER OF THE SHOP OF SPECIALIZED WORKERS.

The stage of specialization in custom dressmaking was presaged in the transition stage. Increasing demands by the customers on her time and attention and the increased size of her force and of the amount of work gradually force the employer to relinquish still further to employees the more important phases of production as well as the supervision of details. However, the large shop of specialized workers is characteristic only of the larger cities. No shops of this type were found in Cambridge and Somerville, but more than one-fourth of the shops visited in Boston (26.2 per cent) and almost one-half (44.4 per cent) of those visited in Worcester came within this class.

The shop of this stage assumes increasingly the appearance of a business establishment. The large quarters are emphasized and advertised by gilt signs on the door and on many windows overlooking the street. On entering the reception room, a wide selection of materials, laces, embroideries, and trimmings of all sorts may tempt the eye of the visitor, or the room may present the luxurious appearance of a private parlor. Separate fitting rooms and workrooms lead off the reception room, and a separate workroom for each division of production, as a skirt room, sleeve room, waist room, and tailoring room, is observed in many of the larger shops.[1] Only occasionally is a shop of this kind found in the home of the dressmaker, though one of the largest dressmakers in Boston, employing 100 workers, and one in Worcester with 24 or 25 employees, carry on their business in the large residences where they make their homes. Even at this stage, which involves large finances, women predominate, although to succeed here a woman must combine shrewd business capacity with a high degree of professional skill and artistic ingenuity.

---

[1] Similar division of labor and specialized workers characterize the large shops of Paris. See description of shops in La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 447. France, Office du Travail. Also Women's Work in Tailoring and Dressmaking, by Margaret Irwin, Glasgow, p. 33.

Men are found in the trade at this stage, however. Sometimes a husband or brother has charge of the financial department and sometimes a man appears as sole head of such an establishment, while a man tailor occasionally combines dressmaking with his tailoring department to meet the needs of his customers and better to solve and equalize the seasonal difficulties. As the street suit needs waists and blouses, the more progressive tailor is adding a department for waists, which occasionally develops into a dressmaking department. Virginia Penny wrote in 1863, "In Germany many dressmakers are men, and there is one on Broadway, New York,"[1] but the development and popularity of the tailor-made suit in the last half century has greatly increased the opportunity for and number of men in the dressmaking trade.[2]

The size of the establishment and of the working force varies widely in the shops of the specialized workers. As shown in the following table, one-half of the shops visited in Boston and Worcester employed from 12 to 18 workers; about one-fourth of the shops in each city employed from 20 to 25. Eleven visited in Boston and one in Worcester employed from 30 to 60, and one exceptionally large shop in Boston employed 112 workers.

TABLE 9.—SIZE OF THE WORKING FORCE IN SHOPS OF THE SPECIALIZATION STAGE IN BOSTON AND WORCESTER.

[Based on employers' reports.]

Size of force.	Number of shops having specified number of employees in—		
	Boston.	Worcester.	Total.
12 to 18 workers	21	5	26
20 to 25 workers	9	2	11
30 workers or more	[1] 12	[2] 1	13
Total	42	8	50

[1] One shop had a force of 112 workers. [2] Force of 30 workers.

In the majority of the shops of specialized workers the employer still retains the planning, cutting, and fitting of the gowns, but in 7 of the 50 shops visited she had delegated even these most skilled processes. In shop B, with a maximum force of 65,[3] the distribution and wages of the employees are as follows:

- 1 head waist girl receives $30, and supervises—
  - 9 waist drapers, of whom—
    - 2 receive $15.
    - 1 receives $12.
    - 2 receive $11.
    - 4 receive $10.

---

[1] The Employments of Women, by Virginia Penny, p. 324. [2] See Table 1. [3] Based on pay rolls.

- 11 finishers, of whom—
  - 3 receive from $9 to $9.50.
  - 4 receive from $8 to $8.50.
  - 2 receive from $6 to $6.50.
  - 1 receives $4.
  - 1 receives $3.
- 1 head of linings receives $12.
- 1 power machine operator receives $12.
- 1 head sleeve girl receives $15, and supervises—
  - 4 finishers, who receive $10, $9, $7.50, and $5.50, respectively.
- 1 head tailor (man) receives $45, and supervises—
  - 6 tailors, of whom—
    - 1 man receives $22.
    - 3 men receive $21.
    - 2 women receive $15.
  - 3 finishers, of whom—
    - 2 receive $10.
    - 1 receives $2.50.
- 1 head skirt girl receives $24, and supervises—
  - 22 assistants, of whom—
    - 2 receive $14.
    - 1 receives $13.
    - 1 receives $12.
    - 2 receive $11.
    - 2 receive $10.
    - 5 receive $9 to $9.50.
    - 5 receive $8 to $8.50.
    - 1 receives $7.50.
    - 2 receive $5.
    - 1 receives $3.
- 4 office girls receive $14, $10, $8.50, and $5.50.

The head waist girl, head skirt girl, and tailor plan in consultation with their employer the different gowns and execute the work in their respective departments. Seven shops reported one or more men tailors. The tailor (or head tailor where several are employed) is usually also a cutter, and receives from $18 to $45 a week, according to the degree of skill and responsibility.

The employer in the stage of specialization as in that of transition is increasingly delegating her powers. The size of the force and the amount of responsibility assumed, therefore, explain the variation in the wage of the head workers. In a shop employing 12 to 18 workers, the employer still retains general supervision of the work. In shops employing 20 to 40 workers, the responsibility is increasingly assumed by the head girls, while in a force of 60 to 100 each head worker is practically in charge of her section of the work, and occupies the place which the employers hold in the stages of transition.

The following table shows the relation between the size of the working force and the wages of the skilled workers:

TABLE 10.—MAXIMUM WEEKLY WAGE OF THREE CLASSES OF SKILLED WORKERS IN SHOPS OF THE SPECIALIZATION STAGE, BY SIZE OF FORCE.[1]

[Based on reports of 49 employers visited.]

Size of force in—	Number of shops reporting classified maximum wage for—												
	Waist drapers.					Skirt drapers.					Sleeve drapers.		
	$10 and under $12	$12 and under $15	$15 and under $20	$20 and under $25	$25 and over.	$10 and under $12	$12 and under $15	$15 and under $20	$20 and under $25	$25 and over.	$9 and under $12	$12 and under $15	$15 and under $20
Boston:[2]													
12 and under 20 workers	1	5	13	.....	.....	5	3	7	.....	.....	5	3	3
20 and under 30 workers	.....	1	3	1	3	.....	.....	5	.....	2	2	2	2
30 workers and over	.....	2	2	4	3	.....	1	4	.....	1	2	3	3
Worcester:													
12 and under 20 workers	.....	3	2	.....	.....	1	.....	3	.....	.....	1	.....	.....
20 and under 30 workers	1	.....	1	.....	.....	1	.....	1	.....	.....	.....	1	.....
30 workers	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....

[1] See similarity of conditions presented in Twenty-sixth Annual Report of the Bureau of Labor Statistics of New York, 1908, p. 158.

[2] Not all shops reported on all workers.

The head waist girl earns from $10 to $15 in a force of 12 to 18 workers; $12 to $25 in a force of 20 to 40 workers, and $18 to $35 in a force of 60 to 100 workers. The head skirt girl earns from $10 to $18 in a force of 12 to 18 workers, $10 to $20 in a force of 20 to 60 workers, and $20 as a minimum in a force of 80 to 100 workers.

In the stage of transition the employer assumed general responsibility and the direction of production. Nine to fifteen dollar drapers on waists and skirts performed the more skilled work and finishers and helpers did the simpler processes. In the stage of specialization the employer delegates the responsibility and the direction of the processes to head waist, skirt, and sleeve drapers, these positions being merely superimposed on the system of organization of the smaller shops. The $18 to $35 draper, now taking, in a certain degree, the place of the employer of the transition stage, supervises the $9 to $15 drapers, who are in turn assisted by the $6 to $10 finishers.

Miss Irwin, in the report of her investigation of the dressmaking trade in Glasgow, notes the "great discrepancy in wage * * * between the rank and file and the 'first' and 'second' hand, but, of course," she says, "there is a corresponding difference in their respective skill and ability,"[1] which is quite obviously the situation in Boston. The advanced stages of the trade require at the one extreme mere mechanical labor and continual repetition of several processes. The workers capable of meeting this demand are numerous, the value of their work is comparatively small, and their compensation is correspondingly low. At the other extreme is offered the opportunity for originality, initiative, highest artistic skill, judgment, administrative ability, and tact. Few workers possess or can acquire these qualifications, and the demand for those who have them greatly exceeds the supply. But, though few can qualify for these higher positions, "still the chances are there," as Miss Irwin expresses it, "and are to the dressmaker's apprentice what the marshal's baton was in the knapsack of Napoleon's young recruit."

---

[1] Women's Work in Tailoring and Dressmaking, by Margaret Irwin, p. 36. See also Le Salaire des Femmes, par Poisson, p. 72, and La Femme dans l'Industrie, par Gonnard, p. 109.

The opportunity for the young worker in a large specialized workroom is problematical. Ordinarily she must enter as an errand girl whose work, specialized like that of all the others, seldom leaves time or opportunity for learning the sewing processes. If a girl by her own ability secures a transfer to the sewing room, or if she has sufficient maturity and capacity to enter as a sewer, she still faces great difficulties. The workshop is divided into separate sections or workrooms where particular parts of the work are turned out. The workrooms are large but crowded and rushed in the busy season, and the organization is much more formal than in a small shop. A "head girl" assumes responsibility for a certain part of the gown, and her subordinate workers are usually grouped around a table over which she presides. The work for the day is systematically planned; she distributes the work among her drapers and finishers, each of whom does one process only. She must make her division pay, and has therefore little time or inclination to divert her attention to systematic training of inexperienced young workers, so the learner must "pick up" the trade as best she can, if the head girl allows her to remain at all. When she has acquired proficiency in one process, it is not surprising if neither she nor her employer is inclined to change her employment. The employee must complete her work promptly and satisfactorily, and the young girl is contented with the easily and quickly acquired processes. The young worker, therefore, becomes in time a sleeve finisher, waist finisher, or skirt finisher, and may never see the relation of her section of the work to the whole. "I make sleeves all day long," said one girl in a large shop, "and never see the waists to which they belong. The waists are made in another room." [1]

The large shop does, however, have two great advantages by which the girl gifted with initiative and ability profits—the high-class work and the highly paid positions. The high class of work provides a valuable training which could not be acquired elsewhere. "I could make more money," said a young girl who came in each day from a suburban city, "by working for a dressmaker at home. After seeing the kind of work done I couldn't be induced to work there. She is a 'regular country dressmaker.' I love to work at W——'s. I am working right under the head sleeve girl and learning how to drape sleeves. We work with beautiful materials." The highly paid positions in a large shop are open to the gifted worker. Individual instances of rising from errand girl to head girl, draper, or fitter are occasionally encountered, though opportunities for such advancement decrease with the increasing specialization in industry and the consequent lack of opportunity to acquire training.

---

[1] Mme. Treub-Cormaz describes a similar situation in Amsterdam. Women's Industrial News, September, 1901, p. 250.

The employer of the large shop furnishes all the materials. She may produce a garment at a price based on an itemized computation of the cost of work and materials, as in the previous stage, or she may name a set or contract price for the completed gown sufficient to cover various possible contingencies, such as long credit and several changes of mind on the part of the client. This system is possible only for the dressmaker who has a large reserve capital and extensive credit, for the business is increasingly placed on a credit basis. Many of the firms of this type purchase large and assorted stocks of materials and furnishings from New York and European importers who allow a three, four, or six months' credit, according to the standing of the local firm. A dressmaker of this type can not attempt business without sufficient capital for at least a season's or even a year's running expenses, as her customers' credit runs from 3 to 18 months.

In dealing with shops of this stage the customer occupies a position of independence as to the production and is in a position to accept or refuse the finished product, which is, until she accepts it, the property of the contractor throughout. Some firms report that an unscrupulous customer occasionally takes advantage of this situation to refuse a gown made for her, in which case the dressmaker may lose not only the cost of making and the anticipated profit, but even the cost of the materials used. This possibility exposes the head of a specialized shop to a risk not incurred by dressmakers in the simpler stages of the trade, who make up the materials of their customers and who at the worst lose only the labor involved. According to M. du Maroussem, the risk of such refusals constitutes a serious factor in the problem of the Paris dressmaker.[1]

6. THE COMMERCIAL DRESSMAKER.

The "industrialization" of the trade, as M. de Seilhac[2] has aptly termed it, is a natural development which has been presaged in the preceding stages. It is the culmination of efforts to evolve a more highly developed system of administration, by which the great problems of capital, competition, labor, and seasonal fluctuation may meet a satisfactory solution. The establishment of this stage is seen in two forms—the commercialized shop and the manufacturing establishment.

---

[1] France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 486.

[2] L'Industrie de la Couture et de la Confection à Paris, par Leon de Seilhac, p. 12.

The large custom dressmaker frequently develops into a merchant or commercial dressmaker for several reasons. The short season of the shop of specialized workers makes it difficult to maintain a regular force, and the stock of materials must find an outlet. The commercial dressmaker employs her force in the dull season in making up these materials in advance of orders, and offers for sale her ready-to-wear gowns as superior to the ready-made product of her closest competitor, the wholesale manufacturer. Then, too, she gradually incorporates in her stock the various accompaniments of her customers' wardrobes. Four different lines of stock are observed in the commercialized shops in Boston: (1) Ready-to-wear or ready-made waists, gowns, suits, and cloaks; (2) millinery; (3) neckwear and lingerie; (4) furs.[1]

A forerunner of the large commercialized shop is seen in the establishment of the small private dressmaker who has her girls in slack time make fancy ornaments and trimmings which she offers for sale to her customers, as well as in the shop of the large dressmaker who frequently makes up "Paris models" in the dull season, thus solving the labor and seasonal problems and disposing of materials which had not yet been made up. The commercial dressmaker merely emphasizes the making and sale of gowns produced in advance of specific orders of customers.

The commercial dressmaking shop is usually owned and conducted by a man, by a partnership of a clever woman dressmaker and a business man, or by an incorporated company.[2] "This seeming anomaly" (predominance of men), says M. Leon de Seilhac, "is explained by the fact that in a 'grande industrie' a woman is little fitted to direct affairs. Even if she had the power of administration and could combine this with economy (of management) she would be afraid to make the plunge. She would not dare risk enormous expenditures when she was not assured of recovering them. Or even the woman with a head for business, who had taste and was an 'artiste,' would too often be incompetent. The man alone can direct an 'industrie' so considerable."[3] However much truth there may be in M. de Seilhac's reasoning, the predominance of men in "commercialized" or "industrialized" dressmaking is as evident in America as in Paris.

---

[1] See similar cases in La Petite Industrie, Vol. II, Le Vêtement à Paris, pp. 442, 455, 457, 461, 462, 468. France, Office du Travail.

[2] M. du Maroussem reports a similar situation in Paris: "Grande Couture—The dressmakers, this masculine group which dominates the whole, representing the 'grande commerce,' draw the greatest profits from a combination of specialties (dressmaking, lingerie, furs, millinery)." France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 488. Also L'Industrie de la Couture et de la Confection à Paris, par Leon de Seilhac, p. 12.

[3] L'Industrie de la Couture et de la Confection à Paris, par Leon de Seilhac, p. 13.

The commercialized shop usually presents all the characteristics of a large mercantile establishment. The output of the department of production must be disposed of. Such a shop must, therefore, appeal to the general public, and is usually located on a street floor in the shopping section of the city. Tempting show windows display the waists and gowns made in the shop or purchased from manufacturing establishments and attract the attention of the casual passer-by. Spacious show and sales rooms require a force of saleswomen. The large business necessitates a force of clerical and secretarial workers, who have had precursors in the occasional bookkeeper and stock girl of the larger dressmakers, but who now become a regular and necessary part of the force. The show and sales rooms, fitting rooms, and workrooms are all conducted and managed under a highly developed administrative or commercial system.

The working force of the "commercialized" shop shows still greater division of labor than prevails in the large custom shop. Secretarial and clerical workers, saleswomen, custom workers, and alteration hands now comprise the force.[1] In a large establishment of this kind the employer is occupied with the general supervision and administration, and as a result has less personal connection with the actual production. The degree of connection retained varies in different establishments.[2]

In the most advanced stage the whole charge and direction of the department of production is vested in a "designer," "forewoman," or "head dressmaker," under whatever title she may be described. One establishment, shop A, employing 100 girls in the store, assigns the whole charge of designing and producing fancy and lingerie wear, custom and ready-to-wear, to a force of 61 workers, thus divided as to work and wages:[3]

1 designer and head dressmaker, who receives $50.
1 designer and fitter, who receives $30.
1 fitter and head of stock, who receives $18.
1 shopper, who receives $12.
13 tailors, of whom—
    2 men receive $35.
    1 man receives $25.
    1 man receives $22.
    2 men receive $21.
    3 men receive $20.

---

[1] See description of similar establishments in La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 463. France, Office du Travail.

[2] Similar variations are reported in the schedules of La Petite Industrie, Vol. II, Le Vêtement à Paris, pp. 455, 457. France, Office du Travail. An employer of the Quartier du Palais Royal, head of a large establishment combining custom and ready-to-wear production, "is occupied wholly with the commercial side of the enterprise." Ibid., p. 457.

Another, of the Quartier de l'Opéra, "is occupied with the commercial side of the enterprise; also to some extent with the purely industrial, the fitting, because of lack of confidence in the head girls." Ibid., p. 455.

[3] Based on pay rolls.

  - 1 man receives $12.
  - 1 man and 1 woman receive $11 each.
  - 1 man receives $9.
- 5 waist drapers, of whom—
  - 2 receive $18.
  - 3 receive $16, $11, and $9, respectively.
- 8 waist finishers, of whom—
  - 1 receives $10.50.
  - 3 receive $9.
  - 1 receives $8.
  - 1 receives $5.
  - 2 receive $4 to $4.50.
- 2 workers on waist linings, who receive $7 and $4, respectively.
- 4 embroiderers, who receive $10, $8, $7.50, and $7, respectively.
- 1 sleeve draper, who receives $16 and supervises—
  - 1 finisher, who receives $8.
- 1 head skirt girl, who receives $30 and supervises—
  - 4 skirt drapers, who receive $18, $12, $11, and $10.50, respectively.
  - 11 skirt finishers, of whom—
    - 1 receives $12.
    - 2 receive $10 to $10.50.
    - 3 receive $9 to $9.50.
    - 1 receives $8.
    - 2 receive $5.
    - 2 receive $3.50.
- 2 office girls, who receive $10 and $8, respectively.
- 1 errand girl, who receives $4.50.
- 4 unclassified by occupation, who receive $10, $8, and $6 (2), respectively.

The members of another firm having 100 employees retain in their own hands the designing, but delegate the direction and supervision of the actual production to a "head dressmaker" receiving $40 a week, and an assistant dressmaker on $20 a week, with a 10 to 10½ months' season. A woman merchant dressmaker, who assumes the responsibility for a force of 30 and who takes the general supervision herself, pays her fitter $30. While the head dressmaker or designer, the expert fitter, and the heads of stock in the commercialized shop replace the employer of the shop of specialized workers, the organization and wage scale of the subordinate producing force is practically the same as shown in shops A and B.[1]

TABLE 11.—MAXIMUM WEEKLY WAGE OF WORKERS IN THE PRODUCING DEPARTMENT OF COMMERCIALIZED SHOPS, BY SIZE OF FORCE.

[Based on reports of 5 employers visited.]

Size of force.	Head dressmakers.	Assistant head dressmakers.	Waist drapers.	Skirt drapers.	Sleeve drapers.
25 workers	....	....	$17	$20	$14
25 workers	....	....	27	25	14
30 workers	$30	....	15	12	....
100 workers	40	$20	18	12	12
100 workers	50	40	25	30	12

---

[1] See list of workers reported for shop A, above, and list for shop B on pp. 38 and 39.

With the complication of the business and the detailed division of labor, the salaried "head dressmaker" has acquired a position of high importance. The employer or firm has become emancipated from any personal relation with the producing department, since complete charge has been turned over to the "head dressmaker." The system of "contract by the job," in labor parlance, or contract price for the completed product now becomes customary. The capitalist employer provides the raw materials and disposes of the finished product, having no longer any direct or personal connection with the intermediate processes. The customer has lost connection with all but the final stage, acceptance or rejection of the finished product. The large establishment involves a greater outlay for rent and general expenditures, and requires the employment of higher priced workers, but possible returns are kept down by the competition of the small dressmakers on the one side and of the factories producing ready-made garments on the other. Profits must now depend primarily on the large numbers of garments produced and disposed of.[1] The tendency in the majority of such establishments is toward the predominance of the sales department and the gradual decline of the department of custom production. This is partially due to the increasing demand for the ready-to-wear garment, but the primary cause is the fact that the sales department yields greater profits than the department of custom production.

After reaching a certain size the custom department yields a loss rather than a profit. This instance of the law of diminishing returns seems to be due to three causes. First, as the size of the force increases a correspondingly increasing number of specialists, heads of the various sections of production, must be employed at large salaries.[2] Second, a hired supervisor or forewoman who secures the most economical use of time, labor, and materials is the exception. Third, the profits on the ready-to-wear can be definitely foreseen by setting a fixed price, with additional sum for alteration. A profit on the custom work can never be assured, as innumerable changes may increase the cost of production indefinitely. The customer who sees a completed garment may try it on for effect, and if it meets her approval, purchase it at the specified sum. If, however, she orders a custom-made gown, it may, when fairly near completion, fail to please her. It must then be taken apart and sometimes altered or made over again and again to please a whim or fancy, so that the total cost of additional labor, materials, and trimmings sometimes exceeds the contracted price, which must stand as originally set regardless of all changes. For instance, in one exclusive establishment a ready-to-wear gown costing $6 sold for $40. A custom-made gown in the same establishment actually costing $85 by the time it met with the customer's approval sold for $85, the original contract price. The labor alone on a gown in such an establishment sometimes costs $125. Many instances could be cited of garments being taken apart three, four, and five times to please a customer, making the cost of labor just so much greater than the amount calculated by the employer when setting the price. In this stage, then, the high-class custom work is not only less profitable than the production of ready-to-wear garments, but also involves much more worry and presents a serious problem in the necessity of securing expert workers. This situation tends to bring about a further development, either the total abandonment of manufacture by the firm, except for the alteration department, or the production of ready-to-wear for a wider and more general market. The custom work has sometimes been continued in order to retain old customers, or for the disposal of materials sold in the merchandise department. The department of custom production in either case, however, assumes the rôle of an accessory rather than of the principal.[1] Only one of the large furnishing houses of Boston has retained the department of custom production, which the firm says "does not pay."

---

[1] A large French firm of the same category tells the same story. France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 464.

[2] Compare wage scales of shops on pp. 34, 35, 38, 39, 44, and 45.

The origin of a large, fashionable women's furnishing goods house of the first type dates back 30 years to the custom dressmaking establishment of a dressmaker who conducted a private business in her home. Her business gradually increased until, upon the maturity of her sons, it was decided to develop its scope. They established themselves in a commercialized shop in the business section of the city, and gradually added to the department of custom production millinery, ready-to-wear and ready-made clothing, and imported gowns, coats, suits, waists, skirts, lingerie, neckwear, and all feminine furnishings. After seven years' experience in this line the custom department was abandoned as a loss rather than a profit. The unreasonable demands of customers made it impossible to fix prices which would insure profits, while continuous leakage in the workroom, due to the impossibility of personal supervision and the heavy expense of highly specialized workers, made the outgo larger than the income.

The commercialized shop which has abandoned all custom production still usually retains an alteration department for altering gowns to fit the buyer. Alteration work does not demand the highest creative and artistic ability nor does it usually need young and inexperienced plain sewers and finishers, hence neither highly paid heads nor young helpers appear and a greater uniformity of workers and wages results. While young and unmarried workers predominate in custom dressmaking, the older, middle-aged, married, or widowed women predominate in alteration work. The woman who has never gotten beyond the "finisher stage" and who, as a result, can secure employment in custom dressmaking only during the rush season, or the woman who has had to go to work in middle or in later life without the specialized training needed for custom work, finds in alterations an opening within her reach.[1] Alteration work, therefore, provides an opportunity which is lacking in the custom shop where originality, artistic lines, and adaptability are essential.

---

[1] M. du Maroussem describes a similar development in Paris. France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 398.

The workroom of the alteration department, which has no direct connection with the customer, is usually in some remote part of the store. One of the most fashionable ready-to-wear shops in the city uses the basement underneath the shop for a workroom. Two small windows opening on the sidewalk furnish very inadequate light and air. Large furnishing stores or ready-made clothing houses which do not use the basement for salesrooms often have their workrooms in the basement. Department stores, however, usually have fairly good workrooms on one of the upper floors, where better light and air are secured.

The alteration departments of eight houses of varied types carrying ready-made wear exclusively showed a range of from 35 to 125 alteration workers. The organization of the work and workers varies in different establishments. In one of the largest and best women's furnishings houses the alteration workers are under the supervision of fitters, who preside over individual tables around which work 10 or 15 alteration hands. In another the fitters never come to the workroom at all and the foreman assumes general supervision over the work. The alteration hands work about tables on each of which a particular kind of work is done, the gown workers, for instance, being at one table, skirt workers at another, and coat workers at another. In any case the workroom is supervised by a foreman or forewoman receiving $20 or more a week. The wages of fitters range from $12 to $30, one shop reporting $15, another $18, and another $20 as the lowest wage. Alteration hands are paid from $7 to $14, while one firm reports some beginners at $5 to $6 and another basters at $6, $7, or $8. Two establishments have inaugurated the piecework system, making a wider range of pay both in rush and dull seasons, and causing greater fluctuation in the labor force. Here is seen competition among men and women coat workers. Four firms employed men with some women finishers on coats, while one employed all women because of the inferior social type of men engaged in this work. One foreman explained that of men and women working side by side on coats the women received $8 to $10, the men $14 to $15. Men, he said, could turn out three to four times as much work in a week and showed more stability and less effects of nervous strain and overwork. Most of the men are foreigners, trained by a long system of apprenticeship and experience, who know the business thoroughly, and hence are superior to the woman worker. The heavy work also requires exceptional strength, making most women ineligible.

---

[1] It is interesting to find M. Aine, Les Patronnes, Employées, et Ouvrières de l'Habillement à Paris, Réforme Sociale (1898), Vol. V, pp. 61-76, making a similar statement of the situation in Paris.

7. THE MANUFACTURING DRESSMAKER.

The merchant dressmaker may begin to look farther afield for a more general patronage than can be reached in his own city. Increasing capital and the means of transportation and communication make available more attractive and profitable openings elsewhere. He may fill orders by mail or by salesmen who sell directly to the customers in other cities. This stage calls for a more highly differentiated and systematized business management; in other words, it is a stage of highly centralized capitalistic production.

The development of a more than local market may be seen in various stages of evolution long before its final and formal appearance as centralized capitalistic production exclusively for a general market. Virginia Penny wrote in 1863, "Some dressmakers have kept the patterns of ladies in the South and made their dresses for years,"[1] and "A French lady on Broadway had a great run of southern custom."[2]

Some of the Boston custom shops even in the stage of transition have patrons from Maine and surrounding districts, while one reported a New York customer. One of these large shops in Boston caters to women in Washington, D. C., and other cities, for whom gowns are made and orders filled on measure. A fashionable merchant dressmaker of Boston now sends salesmen to the southern winter resorts to dispose of the stock ready-to-wear gowns made in her shop.

A still wider development of a general market is seen in the largest women's furnishings store in Boston, which combines a large sales department of raw materials, ready-to-wear and ready-made clothing, a large custom and retail manufacturing department, and an alteration department. The department of production has most of the characteristics of a factory, with 400 to 500 workers, minute subdivision of labor, the piecework system, and the most expensive and modern labor-saving machinery. The head dressmaker goes abroad twice a year for styles, buys models and materials for production, meets customers, and plans and designs the gowns.

A forewoman receiving a weekly wage of $40 hires and supervises the working force and superintends the details of production. Fitters and head drapers are week workers and receive from $20 to $45. They have charge of 10 to 20 subordinate workers, drapers receiving from $8 to $15 and finishers from $6 to $9. The great body of subordinates, both machine operators and handworkers, are pieceworkers, whose weekly wage depends on two factors, (1) their individual speed and (2) the amount of work available.

---

[1] The Employments of Women, by Virginia Penny, p. 326.

[2] Ibid., p. 326.

The stock is still sold only at retail, to the local market by the sales force and in the showrooms of the store and to the general market by traveling salesmen and saleswomen. Each one of these carries with him through the country a force of 8 to 10 fitters and saleswomen and a large stock of models of ready-to-wear garments which are displayed to the public in the showrooms of large hotels. The general trade is carefully systematized, divided into definite districts, and covers a large part of the United States.

So far as the mass of the working force is concerned all the attributes of the factory system are realized in this stage of development.[1] The capitalist employer provides the raw materials, disposes of the finished product, and controls all the intermediate processes. The costly power and labor-saving machines are the property of the employer and are established in the building owned by him. The laborer or producer has again reached the original position of the dependent in the help or hire system. She provides merely the human labor force at the dictation and in accordance with the orders of her employer. From the standpoint of the establishment but one step remains for the realization of the factory system—the abandonment of the department of custom work and the introduction of a standardized product sold at wholesale for a general market.

Factory production of the best class of dresses is, however, almost negligible in Boston because of the competition of New York City. But two factories making high-class dresses comparable to the product of a custom shop and selling wholesale at $18 or more were found at the time of the study, one employing a maximum number of 37 and the other 228 workers. These two factories made a similar product, high-class silk, chiffon, and wash dresses, and each employed one salesman[2] to introduce the samples to retail dealers in New England, besides maintaining a sales and show room in the factory. Since the wholesale manufacturing establishment does not cater to retail trade, a salesroom on the street floor is no longer necessary, and the factory is usually found in an upper story of a large business block, reaching its patrons through its salesmen and by correspondence. In the smaller establishment, with a maximum force of 37, the owner still retains the designing and planning of the gowns, employing a man cutter at $20 a week and a forewoman at $18 to direct and carry on the department of production. In the larger establishment, employing a maximum force of 228, the designing and planning of the whole output is vested in a man designer at $60 a week for 52 weeks in the year. Forewomen at $30, $20, and $18 direct and supervise the work of particular sections. The employer in the large factory has divorced himself entirely from the actual production and devotes his time to the business administration, holding the designer responsible for turning out a salable and profitable stock. Machine operators who manipulate power machines and hand finishers who put on the finishing touches which the machine can not do constitute two-thirds of the working force, earning $5 to $15 a week.

---

[1] See definition of the "factory system," in Principles of Economics, by Seligman, pp. 93, 94.

[2] One employed a saleswoman on the road.

The small shop employing from 6 to 20 workers is the characteristic type (37.1 per cent of the total number of shops) in New York, the center of the trade, but employs only 15 per cent of all the workers. The larger shop of 21 to 50 workers, forming 29 per cent of the total number of establishments, employs the largest proportion of workers (29.3 per cent). The shops with forces of 51 to 100 and 100 to 250, representing 10.5 per cent and 5 per cent respectively of the total number of shops employ each 22.5 per cent of the average number employed.[1] The two Boston factories, though isolated, are, therefore, representative of the prevalent types in the trade.

This general survey of the dressmakers' trade in Massachusetts shows that the trade here is far from being "chaos," as Miss Black concluded it was in London.[2] Although the industry is in a state of transition and the simplest forms may be found existing by the side of the most complex, and though variations of a local, personal, or transitional nature are common, yet fairly general conditions and tendencies may be traced. Omitting from consideration the woman who makes clothes only for herself or her family, the trade shows a continuous development through six fairly well defined stages, i. e., the stage of the day worker, of the private dressmaker, the shop of the transition stage, the large shop of specialized workers, the merchant dressmaker, and the manufacturer As no statistics can be obtained showing the number of dayworkers, it is not possible to say what proportion of the trade belongs to each of the stages: Two tendencies are apparent, however. Production under the factory system—the stage of the manufacturer—has shown a phenomenal growth within the last few decades; and in the custom branches of the trade the small and medium-sized shops are disappearing before the competition of the domestic or dayworkers on the one side and the large shop on the other.

---

[1] Calculated from United States Census, 1910, Vol. III, Manufactures, 219.

[2] "We have now presented a survey of the three trades which we set out to investigate [in London]; and looking back upon our assemblage of facts, the word that rises in our mind is chaos. As far as we can see, the chief characteristic of these trades is an absence of uniformity. In very few is there parity of payments. Over by far the greater part of the field there is not a standard wage and hardly even a current wage. Individualism run wild, a lack of coordination, a swelter of persons all striving separately, this is the spectacle presented * * * in the higher walks of the bespoke branch of dressmaking; there are traces of a customary wage for 'full hands' that once was current but that now is being broken down." Makers of our Clothes, by Meyer and Black, p. 143.

Miss Irwin reaches the contrary conclusion, that "the dressmaking trade [in Glasgow] presents little variety in remuneration and conditions of employment." Women's Work in Tailoring and Dressmaking, by Margaret Irwin, Glasgow, 1900, p. 33.

As the trade passes through these successive stages, the place of production shows a continuous movement away from the home toward increasingly commercialized and industrialized quarters. The size of the working force and to a certain extent the quality of the product alter from stage to stage so that each has certain characteristic conditions as to division of labor and wages paid. The plain sewer receives from $6 to $9 a week, this wage remaining about the same whether she goes out by the day or works in a specialized shop. As the trade develops, more and more specialized workers are added, until each department has its head worker, whose wages range from $10 to $50 or $60 a week, depending on the degree of responsibility, with a force of assistants whose wages range downward to $6 or less according to the character of their work.

The opportunities for young workers to learn the trade vary with the different types of shops. In general they are best in the shop of moderate size, where the worker is still under the immediate supervision of the employer, where subdivision of labor has not been carried to a point which deprives the learner of an all-round training, but where the class of the work done enables her to fit herself for the higher branches of the trade. The medium-sized shop, however, is being crushed out by competition. At best the opportunities for acquiring the trade in a shop are limited and unsatisfactory. Modern industrial conditions make it doubtful whether a young learner can satisfactorily acquire a skilled trade by working at it, and the majority doubtless can best secure their training through an outside agency which gives the foundation principles of the trade.

CHAPTER III.

INDUSTRIAL CONDITIONS IN THE TRADE.

Three problems, the need of capital, competition, and the difficulty of securing skilled workers, are vital factors in determining the development of the dressmaking trade. These problems should be appreciated by educators because they determine the conditions and opportunities in the different types of shops and show for what pupils must be prepared; by customers because their influence and thought may aid in solving them. These problems of capital, competition and labor appear in varying degrees of intensity in the different types of shops but must be faced and solved by all.

BUSINESS ADMINISTRATION.

The problem of capital assumes first place among the present-day questions of custom dressmaking because it is largely a woman's trade which has until recently been mainly a domestic industry, so that the importance of businesslike methods and scientific administrative system are only beginning to be realized. The passing of the dressmaking trade from the primitive stages of a domestic character to the industrialized and capitalistic system of production is so recent that a large part of the trade is still monopolized by the small dressmaker who does not understand business principles nor attempt to utilize them in her shop. The small dressmaker, both "private" and in the stage of transition, keeps few, if any, records of her income or expenditures. The business and administrative aspect of the trade is relegated to secondary place, usually with unfortunate results. "Why, I have no pay roll," said an employer of 14 girls in an injured tone of voice. "When would I ever get time to keep it?" "No, I never keep any records of any sort," said another. "I never even know whether the cost of a particular gown exceeds or is less than the price I have set." Only two of the twenty-five shops in the stage of transition visited in Boston showed any attempt at separation of the business administration from the production. In both, two women as partners conducted the shop, one supervising the workroom and one the buying and accounts of merchants and customers.

The growth of the shop and development of the business, however, force the dressmaker to delegate clerical work and supervision of income and expenses as she has delegated her powers in the workroom. Although some of the smaller shops of specialized workers have no records, the occasional young stock girl or "office" girl implies the evolution of the bookkeeper who keeps systematic and intelligible accounts. In the large shops where a great deal of business is done, a head bookkeeper and one or more assistants are usually found, and there may be an office wholly devoted to clerical work.

Scientific computation of cost of production is still in its infancy, however. One shop of twenty-five workers was discovered where an itemized account of the time spent by each worker and the ultimate cost were recorded on tickets attached to each article made. The employer had previously been a head waist draper in a large commercial dressmaking shop where she had been trained in business principles. But such system is unusual even in the large shops. A large commercialized shop, conducted under the partnership of a successful business woman and her brother, had developed a very scientific system of administration by which "we know the cost of the air they breathe." The male member of the firm made a careful study of cost of time, materials, and production, which was explained to the workers when he inaugurated the system of accurately recording upon an attached ticket the time spent on each article. After a year's experiment, however, the plan was abandoned as unprofitable and unnecessary.

THE PROBLEM OF CAPITAL.

The problem of capital has a varied significance for the different types of dressmakers. Since the itinerant dressmaker goes to the home of her employer, she need not consider the problem of rent; as her client furnishes all materials, she has no need of credit at stores, and as she does not, as a rule, employ assistants, she is not confronted with a weekly pay roll. If she has a helper, however, as she herself is paid by the day, she can easily pay her help.[1] For her, therefore, capital is a negligible matter.

As soon, however, as the dayworker realizes her ambition to have a shop of her own—to become a "mistress dressmaker"—the problem of sufficient capital becomes an important matter for consideration. To pay rent until the business becomes self-supporting, to secure credit from stores and extend it to customers, and to meet the weekly pay roll, she must have reserve capital. A small private dressmaker may avoid the problem of rent by carrying on her trade in her home, or, if she has no home, may rent a room or suite of rooms in a business block down town. A dressmaker who does a small business usually combines living and business quarters as a measure of economy and financial necessity. Location is unimportant, as she caters only to personal friends who can find her even in a remote or somewhat inaccessible spot. The dressmaker of the stage of transition, however, seeks a wider clientele, maintains a larger force, and has a larger trade, and so makes a larger investment in her business quarters, not only because the needs of her increased business require it, but because a good location and prosperous appearance are good business investments. The dressmaker of the large shop of specialized workers usually occupies commodious and pretentious quarters in the fashionable shopping district. Her large force of workers necessitates large workrooms; her increased trade necessitates stock rooms, and her enlarged clientele requires reception rooms, showrooms and fitting rooms. The merchant dressmaker of the commercialized shop emphasizes the making and sale of ready-to-wear gowns, the disposal of which suggests the advantage of a street floor. Easy access and tempting show windows appeal to a still larger clientele, attracting the casual buyer or passer as well as regular customers. Spacious showrooms and large workrooms in the fashionable shopping district necessitate heavy expenditures in rent as well as in materials and in the weekly pay roll. In each step is seen an increasing need of capital. Extended credit and scientific business methods as well as large capital are essential to carry on the large establishment, and the woman dressmaker, as has been pointed out, is unusual in this stage of the trade.

---

[1] See similar condition reported in France. Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, pp. 406-408.

The problem of capital is accentuated by the system of extending credit which is so common in the business world but which proves a serious handicap to the woman dressmaker without a bank account. As soon as she opens a shop she is confronted with her patrons' demand for credit. The growing custom of furnishing materials increases the difficulty. In this day of keen competition the chief profits of the custom dressmaker lie in the furnishings bought at 10 per cent rebate and sold at retail prices to the customer.[1] The small dressmaker, however, with little or no reserve capital has only 30 days' credit at the local stores. If her bill is not paid within the specified time, the rebate is lost. Seven of the 27 private dressmakers visited in Boston reported customers who insisted on the six months' credit system, while others undoubtedly had such customers. A small establishment with limited capital, or none at all, is unable to exist on this basis. Customers, moreover, often delay payments unnecessarily, seriously handicapping the small dressmaker in meeting her own expenses. Those who have automobiles and other luxuries can not pay an \$80 or \$100 dressmaker's bill. One customer can not pay her bill because "I am going to Europe this summer and must be economical." Another "will not be able to pay for these clothes this fall because John is going to college this winter and there are so many expenses." "Why, I never realized that it made any great difference," said a wealthy customer as she leisurely wrote out a check for $250 which had caused months of worry to her dressmaker. "I just wait from one visit of the mailman to the next, hoping for a check," said one dressmaker. "That is one of the greatest hardships."

---

[1] Miss Irwin reports a similar statement from the dressmakers of Glasgow. "The mere making does not pay. We have to get what profit we can out of trimmings and furnishings." Women's Work in Tailoring and Dressmaking (Glasgow), by Margaret Irwin, p. 34.

The matter of credit becomes still more serious for the dressmaker in the stage of transition because she makes a wider appeal for patronage, which results in more credit customers. She furnishes the materials to an increasing extent, and her enlarged force increases the running expenses and weekly pay roll, which necessitates ready capital. She does not carry a stock of materials, as does the dressmaker of the stage of specialization, but her patrons choose from samples which she secures from the stores. This custom, as well as the other phases of development observed in this stage, is in a state of transition, some dressmakers insisting on furnishing the materials, some leaving the choice with the customer, and some furnishing only the trimmings. The furnishing of materials yields a profit, but intensifies the difficulty of extending credit, for the dressmaker invests a large proportion of her capital in the product, and delay on the part of her customer involves her in financial difficulties with the furnishings stores.[1] Reports from 11 of the 25 establishments of the transition stage visited in Boston revealed financial difficulties resulting from the long credit system. The case of a young dressmaker, formerly a $25 waist draper in a large fashionable establishment, who recently opened up a small shop in a back room with a capital of $350, illustrates this point. Her business was at first necessarily done on a cash basis. She had to pay cash for her purchases and her customers must do the same. By the beginning of the second year she had drawn enough of her previous customers from her former place to enable her to take larger quarters and a larger force. She was now able to secure extended credit from women's furnishings establishments, but she catered to customers who paid once in six months or "still more commonly once a year." In her second year she was doing an annual business of $12,000, but had $4,000 in outstanding bills of six months' duration.

"Regular customers pay twice a year," said one of these dressmakers. "Customers have often come and ordered a gown when it was impossible for me to take the order because I had no money or credit to obtain the materials to fill the order." "Customers are slow to pay their bills and some fail altogether," said another. "Last year we lost $600 in outstanding bills. We had one customer for whom we worked 20 years. She was wealthy—her husband made money fast—but her bill with us reached $2,300, $200 to $300 of which dated back to 1904. Finally we refused to make anything more until the bill was paid to date. We finally got the last of the amount this fall, but offended and lost the customer." Some of the more independent small dressmakers are refusing to cater to credit customers. One employer who has been in the trade for 30 years reduced her clientele to those who pay cash, and as a result cut her force and custom down to one-third its former size, but secured results more satisfactory to herself. Another employer with sufficient capital in outstanding bills was forced to close shop because of inability to meet running expenses. In the meantime an order came for some expensive work from a wealthy customer. "I should be glad to do the work for you," said the dressmaker, "but must ask that payment be made on completion of the work." The order was immediately withdrawn.

---

[1] One of the dressmakers of Paris reported that one of the three greatest obstacles to her success was the discrediting of rebates on bills, caused by the delay of her clientele, which robbed her of the greatest part of the profits. France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 123.

The majority of dressmakers of this type manage with some reserve capital in the bank, credit with large firms, and a sufficient number of cash or three-months'-credit customers to meet satisfactorily their running expenses, though large profits are lost through lack of capital in hand.

The large shop of specialized workers does business almost wholly on a credit basis. The largest and most prosperous firms buy their materials from European importers who allow three, six, or more months' credit according to the standing of the local firm, while the customers of such shops pay once in 6, 12, or 18 months. "Large capital or a very good credit and wide acquaintance are absolutely necessary," said the manager of a large commercial dressmaking shop. "The custom of paying bills once a year or once in 18 months is quite general. We send out a statement the first of each month to certain customers and usually can collect 87 per cent of the bills within three months. Some may not pay within a year or 18 months, but we don't bother them with statements. We know their money comes in slowly, but they are perfectly sound and reliable. We have one customer whose bill for this year amounts to $2,200. We can't afford to offend these customers. They are sure pay, but they don't like to pay more than once a year, and then they send in a check for the full amount without the least effort. The rich people are the ones who allow bills to run the longest. Although this is true in many businesses, I believe it is worse in dressmaking than in anything else."

The capital problem is thus one of the most serious problems of the trade for all types of shops. Reserve capital is necessary to meet the immediate expenses, such as rent, light, and wages. Credit is necessary to secure materials and furnishings in advance. The system of giving credit established by the large firms is one of the most effective weapons against small establishments, which can not exist on this basis.

"Why don't you inaugurate a 30 days' credit system like the stores?" asked the investigator of a great number of dressmakers. "That would be impossible," was the reply. "Our customers would simply leave and go to some one who would grant the long credit." Cooperative action alone could solve this great problem of long credit for the majority of dressmakers. Some, because of their independence of spirit, individual capacity and ability, can set the terms upon which they will work for their customers, but the majority are not able to do this alone. A small Boston dressmaker declared her intention of starting out anew next year and informing customers that interest would be charged on outstanding bills, but the result is questionable in a trade so dependent on the client's good will. The large shops, however, are able to meet the difficulty by fixing a "contract price" which is made sufficiently large to cover all such delays.

Unfortunately the hardships of the capital problem reach beyond the dressmaker to her employees, especially in the small and medium-sized shops where the bank account is limited. The small employer with no reserve capital can pay her girls only as her bills are paid. Three or four weeks often go by without payment. Sometimes the employer pays part of their week's wage to pacify them. One girl said "We used to go to Mrs. ——— and ask if we might at least have car fare." "How can I pay you," her employer answered, "until my customers pay me?" It does not seem possible that the small dressmaker who does not keep a pay roll can remember whom, when, and how much she has paid, and under these circumstances disputes frequently result over the amount due. The financial difficulties of a medium-sized shop are illustrated in the accompanying pay-roll record taken for two periods, one in 1905-6 and one in 1910-11.

TABLE 12.—WEEKLY PAY ROLLS OF A DRESSMAKER WITHOUT LARGE RESERVE CAPITAL, FOR THE YEARS 1905-6 AND 1910-11.

Week of the month.	1905-6			1910-11		
	Number employed.	Amount paid to workers.	Amount remaining due workers.	Number employed.	Amount paid to workers.	Amount remaining due workers.
September:						
1st week	2			2		$4.82
2d week	7		$20.92	10		36.19
3d week	11	$68.08	33.25	11	$98.59	
4th week	12	76.70	35.08	10	70.25	
October:						
1st week	12	51.92	50.50	10	75.22	
2d week	13	93.08	35.00	11	66.83	10.00
3d week	13	74.00	41.50	14	68.67	43.00
4th week	13	76.08	43.00	14	78.92	55.83
5th week	12		62.50	14	54.73	96.83
November:						
1st week	13		74.50	15	124.67	80.16
2d week	13	81.33	77.17	16	97.25	93.16
3d week	13	77.09	77.00	17	61.17	134.80
4th week	13		140.98	17	53.50	188.33
December:						
1st week	13	119.06	75.34	16	170.67	127.16
2d week	12	83.25	59.67	15	116.74	124.75
3d week	11	73.25	55.92	15	136.08	104.33
4th week	4	54.61	17.67	14	109.25	78.33
5th week		5.00	11.67			
January:						
1st week	9	63.50	4.91	14	106.83	78.00
2d week	10	75.63		13	97.67	77.00
3d week	10	53.08	5.50	13	93.33	75.00
4th week	10	52.33	17.00	13	92.66	78.00
5th week	9	13.54	58.00	12	83.66	80.00
February:						
1st week	9	30.00	90.00	11	83.00	81.00
2d week	9	79.50	104.25	11	163.08	3.00
3d week	7	54.02	102.57	11	11.00	27.09
4th week	12	73.25	99.93	13	78.98	38.09
March:						
1st week	14	93.35	99.08	13	81.08	40.09
2d week	13	70.89	86.70	14	72.74	41.84
3d week	14	38.67	129.71	14	92.25	47.00
4th week	15	46.58	154.88	13	88.08	56.00
5th week		13.67	12.33			
April:						
1st week	11	71.12	121.36	14	107.33	53.00
2d week	15	44.25	161.99	14	99.00	46.33
3d week	15	62.87	191.60	14	100.50	34.60
4th week	12	91.45	199.88	14	106.25	51.00
5th week	3	22.25	225.12			
May:						
1st week	13	124.79	215.50	13	89.33	50.50
2d week	14	82.67	236.67	13	102.50	51.00
3d week	13	57.80	252.00	13	107.50	45.00
4th week	13	104.74	231.50	13	137.00	6.00
5th week		25.00		13	86.83	4.00
June:						
1st week	12	95.67	194.08	13	96.50	5.00
2d week	12	56.42	217.83	13	91.66	2.00
3d week	12	68.00	200.76	13	107.50	
4th week	12	21.35	254.57	13	99.50	
July:						
1st week	10	86.50	228.89	12	61.51	
2d week	8	74.67	217.72	9	38.50	
3d week	8	159.83	33.00	7	56.33	
4th week	5	50.35	.50	5	12.50	
5th week	2	2.00				
Length of season	48 weeks.			47 weeks.		

The owner opened a shop in a business building about 15 years ago and has at present a force of 10 to 15 workers, the majority of whom began with her as young learners. In 1905-6, when the first pay-roll record was taken, she had been in business 10 years. Yet there was a deficit in the weekly pay roll every week of the 48 except 2. The amount remaining due exceeded the amount of wages paid in more than one-half of the 48 weeks worked. By 1910, five years later, she was on a somewhat better financial basis. There was no deficit on the pay roll 9 of the 47 weeks the shop was open, and the amount remaining due exceeded the wage paid in only six (12.9 per cent) of the 47 weeks worked.

In 1905–6 the deficit in the pay roll shows two peaks, one in November and one in May. These correspond to the heights of the dressmaking season, and are due to the fact that few people pay their bills until their wardrobe is complete, but the money begins to come in as the finished gowns are sent out. In 1910–11, the fall peak still occurred in November, but in the spring March shows the greatest deficit.

The significance of this situation to the individual girl is shown by the weekly wage record of a $10 (later $12) draper working in the shop.

TABLE 13.—WAGES PAID AND DUE A $10 DRAPER (RAISED TO $12 IN 1910-11) WORKING IN THE SHOP OF THE PRECEDING DRESSMAKER.

[Based on pay roll.]

Week of the month.	1905-6			1910-11		
	Number of days worked per week.	Amount.		Number of days worked per week.	Amount.	
		Paid.	Owed.		Paid.	Owed.
September:						
1st week	....	....	....	....	....	....
2d week	....	....	....	....	....	....
3d week	3	....	$5.00	5	$10.00	....
4th week	6	$10.00	5.00	6	12.00	....
October:						
1st week	6	6.00	9.00	6	12.00	....
2d week	6	11.00	8.00	5	10.00	....
3d week	6	7.00	11.00	6	5.00	$7.00
4th week	6	10.00	11.00	5¾	8.50	10.00
5th week	6	1.00	20.00	5½	3.00	18.00
November:						
1st week	6	7.00	23.00	5½	14.00	15.00
2d week	6	10.00	20.00	6	12.00	15.00
3d week	6	10.00	20.00	5	5.00	20.00
4th week	5	....	28.33	6	2.00	30.00
December:						
1st week	5½	12.00	25.50	5½	20.00	21.00
2d week	4	16.00	16.17	6	15.00	18.00
3d week	6	5.50	26.17	6	14.00	16.00
4th week	4	16.17	10.00	6	14.00	12.00
5th week	....	5.00	11.67	....	....	....
January:						
1st week	5	15.00	....	6	12.00	12.00
2d week	6	15.00	....	5¾	11.50	12.00
3d week	5	8.33	....	6	12.00	12.00
4th week	5	8.33	....	6	12.00	12.00
5th week	6	5.00	5.00	4½	11.00	10.00
February:						
1st week	6	2.00	13.00	5	8.00	12.00
2d week	6	10.00	13.00	5½	24.00	....
3d week	5	6.67	15.00	2	....	4.00
4th week	6	10.00	15.00	6	8.00	4.00
March:						
1st week	6	1.00	24.00	6	10.00	10.00
2d week	4	15.00	9.00	5	10.00	10.00
3d week	6	....	19.00	6	10.00	12.00
4th week	6	3.00	32.67	6	12.00	12.00

TABLE 13.—WAGES PAID AND DUE A $10 DRAPER (RAISED TO $12 IN 1910-11) WORKING IN THE SHOP OF THE PRECEDING DRESSMAKER—Concluded.

Week of the month.	1905-6			1910-11		
	Number of days worked per week.	Amount.		Number of days worked per week.	Amount.	
		Paid.	Owed.		Paid.	Owed.
April:						
1st week	5½	$11.00	$32.67	6	$12.00	$12.00
2d week	6	1.00	43.67	5	12.00	10.00
3d week	6	4.00	51.67	4½	10.00	9.00
4th week	4¾	11.67	51.50	6	10.00	11.00
5th week	6	....	61.50	....	....	....
May:						
1st week	6	15.50	60.00	5	10.00	11.00
2d week	6	6.00	66.00	6	11.00	12.00
3d week	6	6.00	72.00	6	12.00	12.00
4th week	5	10.00	72.00	6	18.00	6.00
5th week	....	....	....	3	8.00	4.00
June:						
1st week	6	9.00	73.00	5	9.00	5.00
2d week	6	12.00	73.00	5	15.00	....
3d week	5	....	81.33	6	12.00	....
4th week	6	....	91.33	5	10.00	....
July:						
1st week	5	12.00	93.00	4	8.00	....
2d week	5	13.00	90.00	4	8.00	....
3d week	6	52.00	50.00	6	12.00	....
4th week	5¾	61.50	....	3	....	....
5th week	3½	7.00	....	....	....	....
Total	253	457.67	....	240 11/12	474.00	....

In 1905-6 there were only 6 weeks in the 46 when her employer was not in debt to her. In the last week of June and in the first two weeks of July her weekly arrears in wage were at least $90. In 1910-11 the improvement in the financial condition of her employer resulted in better conditions for the workers. Twelve of the 45 weeks showed no deficit and the weekly arrears in wage reached the maximum of $30.

The customer of the small dressmaker, therefore, has a serious obligation which she often does not recognize, because she does not realize the far-reaching effects of her negligence or failure to pay her bills promptly. The girl ultimately bears the brunt, for her employer, with no reserve capital, can pay her girls only as her own bills are paid. The large shops with reserve capital, for this reason, offer another strong inducement to the girl, for the advantage of a regular weekly wage often counterbalances the advantages of a longer season. On this basis alone, the large shops compete seriously with the small dressmaker.

THE PROBLEM OF COMPETITION.

Capital, credit, and cost and character of product form the basis of the struggle for existence carried on by the custom dressmaker versus the wholesale manufacturer, the large custom shop versus the small, and the woman dressmaker versus the man tailor, and this struggle forms the second great industrial problem in dressmaking—competition. The development of the ready-made wear has had two definite results—(1) decreasing the amount and (2) changing the kind of work done by the dressmaker. The scope of business of the private and of the transitional dressmaker is now largely limited to fancy and lingerie dresses and to alterations of custom or ready-made wear. "Most of the work left to dressmakers is the making of fancy gowns, and work for people not of regulation size and figure," said a private dressmaker. "Some of my old customers now depend altogether on ready-made wear. Others may have one fancy gown made in a year." By the irony of fate, a large part of the work which has passed out of the hands of the dressmaker into the factory comes back to her to be altered to fit the customer. "We altered the prettiest little silk dress this afternoon," said a forewoman in a dressmaking shop. "The customer bought it down town for $18. We couldn't have made one like it for less than $35 or $40."

While the large manufacturer has competed most seriously with the dressmaker doing a small or medium-sized business, the increasing perfection of the ready-made product is resulting in its adoption by the wealthier classes. Custom work, because more expensive, must maintain its position chiefly by superiority of product. While the small dressmaker has only this weapon, the large custom dressmaker is adopting other methods of maintaining her position by introducing variety as well as superiority of product—a movement which explains the growth of the large shop. Some 8 to 10 employers in Boston have faced squarely the popularity of the ready-made wear and added a department of ready-to-wear or ready-made. Since the prevalence and popularity of the tailored street suits transferred to the ladies' tailor a large proportion of the high-grade custom tailored work, the large dressmaker is meeting this situation by adding a department conducted by men tailors or by making some combination with a man tailor. Thus the large shop is meeting all its competitors by adopting their own weapons.

The small dressmaker can compete with the large custom dressmaker because of smaller expenses and lower prices. While the dressmaker doing a moderate business is being crowded out, the importance of the day and home worker in the trade has been already noted. M. du Maroussem was convinced of the increasing importance of the small dressmakers in France and pointed out three factors which were facilitating this development: First, the great furnishings stores put at the disposal of the patrons quite as wide a choice of materials as do the great dressmaking establishments; second, the journals of the modes furnish the artistic idea and provide the intellectual part of the task for the most humble dressmakers; and third, the pattern houses perform the same service in a less public way. To this list might be added a fourth factor in the American situation—the importation of European models. The importers are bringing about a remarkable democratization of the trade, and, as a member of a large Boston firm explained, are helping the smallest dressmaker, if clever and ingenious, to become a serious competitor of the largest establishment.

The increasing popularity of the tailored street suit has made the man tailor an important competitor, for it is generally admitted that men excel in heavy tailored work. The small tailor who does his own work can underbid the dressmaker who must employ a tailor. The large tailors are gradually adding waist departments and dressmaking for the convenience of their customers and for the equalization of the seasonal fluctuation through a wider variety of product.

"The competition of the ready-made and ready-to-wear of the Jewish tailors and of small dressmakers who turn out work for lower prices is making a serious invasion on high-class large establishments," said the owner of a high-class shop. "It is only within the last few years—the era of the importer—that they have appeared on the scene as serious competitors. Now that importers bring the European models to New York twice a year, the small manufacturer and small dressmaker and tailor can see the styles and get the ideas just as well as the large firms who have gone to Europe to get them. They can turn out the product at much less cost because they do not maintain the pretentious establishments and specialized workers of the large shops."

Dressmakers of suburban cities have an additional problem in competition. Wealthy people of Worcester, Cambridge, and Somerville go to Boston for their better costumes. Not only the large stores offering high-class ready-made and ready-to-wear, but large custom dressmakers as well, draw the trade away from the home city. Little need or opportunity for the development of high-class dressmaking therefore exists. The prestige of fashionable Boston establishments makes impossible high charges in the smaller centers. "We could do just as good work as the Boston shops," said a Worcester dressmaker, "but we can't ask half the price." The statement was well borne out by a wealthy woman, who said "I had a suit made at ——— in Boston this fall which cost $100. I could have gotten it for half the price in Worcester, if I hadn't been in a hurry and had to have it in a few days." Department stores and mail-order houses also secure the trade of the less prosperous. This competition, therefore, forces the dressmaking trade in these cities to remain largely in the elementary stages of the trade.

The lack of development in Lowell is due to a different cause. Lowell is a mill city with a large population and with large investment of capital, but the capitalists do not live in Lowell, and the population which resides there creates small demand for high-class work.

Thus the dressmaking trade in small cities shows little development for various reasons, which may be summed up in the one reason, lack of demand.

The two great industrial problems—capital and competition—are the barriers which are retarding and changing the current of development.

The women's clothing trade, which has longest retained its domestic character, has within the last two or three decades been brought sharply face to face with the industrial development and organization of the twentieth century. Capital and credit have become essential for existence for all but the dayworker and assume increasing importance with the increasing size of the shop. The small dressmaker has only a limited credit, and must have reserve capital to meet running expenses. Large establishments have long credit, but have enormous current expenses, necessitating large available capital. The extension of credit to customers has become so thoroughly established that there are few shops which do not have a large or small number of credit customers. The small and medium-sized shops are collapsing under this system. The large shops, though often seriously inconvenienced, can use the credit system as a powerful weapon against the small competitor.

THE LABOR FORCE.

Besides the problems of capital and competition the recruiting of workers has become one of the most serious questions which face the employer in the dressmaking trade, for the disappearance of the apprenticeship system and of opportunities for learning the trade in the shop, together with the increasing demand for skill and artistic ability, are leaving both employer and worker in a practically untenable position. These conditions within the trade, together with the great increase in the number and variety of openings for women workers, have left the trade commonly regarded as peculiarly belonging to women almost stranded for lack of good workers.

The scarcity of skilled workers menaces the dressmaking trade in Boston. The labor situation in a city like Worcester seems to be less acute than in a larger city like Boston. The large employers of Worcester say they seldom take on a new worker, holding their regular force year after year, and some of their workers have been with them 10, 14, and even 18 years. One employer of 12 girls has not taken on a new girl for 5 or 6 years, and some girls have been with her 14 years. The greater stability of the force in such a city is due to the longer seasons, to the fact that comparatively few shops employ help, giving little opportunity for shifting from one to another, and to the fewer opportunities in other lines of work for the girl who feels superior to the factory.

The scarcity of skilled workers, however, is noticeable there as in other cities. Seventeen of the eighteen regular employers complained of the great scarcity of workers. The superintendent of a large store which conducts a custom dressmaking department said he could "get plenty of fitters in the dressmakers who have had to give up business because of inability to get efficient help, but I have had an advertisement in the paper for a head sleeve girl for a week, and no one has even applied." Another dressmaker, who used to keep several assistants, can not get satisfactory help anywhere at present, so only does such work as she can manage herself. "Many dressmakers who used to do a big business," she said, "have given it up for lack of workers, and now go out by the day."

How are these workers recruited? Advertisements in the newspapers, placards in doors and windows, and passing the word through employees to their friends are the most common methods.

TABLE 14.—METHOD OF SECURING POSITIONS AS REPORTED BY WORKERS THEMSELVES.

[Based on personal interviews.]

Method of securing position.	Workers using specified methods.	
	Number.	Per cent.
Personal relation:		
Friend	65	
Relative	18	
Forewoman	16	
Employer	7	
Total	106	33.5
Advertisements	39	12.3
Application	40	12.6
Agency	8	2.5
Trade school	124	39.1
Grand total	317	100.0

While 39.1 per cent of the positions reported by workers visited were secured through the Boston Trade School for Girls, this means is open to only a small proportion of the workers as a whole, the large number here shown being because all graduates of this school were followed up.[1] The personal relation, hearing of and securing a position through friend, relative, or friendly forewoman, seems to be the most common method for the more stable workers, 33.5 per cent of the 317 positions reported by workers visited having been secured by this means. Advertisements, application (on seeing a sign in the window or by chance), and the employment agency are rather the resort of the drifters and less competent workers or strangers and new workers, 27.4 per cent of the 317 positions being secured through this means.

---

[1] Eighty-four graduates, who had been trained in dressmaking, were interviewed.

Good workers are so scarce that, once having demonstrated their ability, they have small need of outside agencies to secure work for them.

These methods of recruiting the working force result in a motley assemblage of aspirants, so employers say. "I advertised the other day for four girls," said one employer, "and about four dozen applied. I tried four, but they are not much good." "American girls are still going into dressmaking," said a French dressmaker, "but they don't seem to have sufficient fundamental training and experience. They make so many serious blunders and ruin beautiful materials by carelessness and awkwardness. A woman of 36 came to the shop the other day, and I took her on at $1 a day. She could not do anything well. Custom dressmaking can exist only by putting out a product superior to the ready-made wear." "There are many old women going about applying at shops for work. They give a long list of places where they have worked. They are absolutely inefficient, and I have to do the work over after them."

The most promising applicants are engaged, although personally unknown to the employer. He usually asks some questions regarding former positions, but gives little heed to the answers. "We can't follow up the references the girls give us," said one. "We would not get anything else done." The girls frankly admit that they always "tell a good story." "If I was getting $7 a week at my last place, I tell the next employer I was getting $8," said one girl. The girls are engaged on the spot. If they prove competent and faithful workers, every inducement is offered to hold them; if not, they are dismissed at the earliest possible moment. Where the forewomen and head girls remain fairly stable and permanent and when they are women of tact, consideration, and administrative ability, the trade does not suffer as much as might be expected from this haphazard method, but where such conditions do not prevail the workroom is sometimes chaotic.[1]

The labor force may be classified into three groups, (1) the nucleus or core of the force, which is employed throughout the shop season, (2) the finishers and helpers, who are an essential part of the force but are laid off twice a year in dull seasons, and (3) the "rush hands" who are taken on only during the height of the rush season to aid in getting out on schedule time the work which rapidly accumulates for immediate completion.[2] The core of the force, which works about 40 weeks or more, the characteristic season, constituted but 21.8 per cent of the 600 custom workers and a still smaller proportion, 15.3 per cent, of the 522 factory workers studied from pay rolls. In the custom shops this core forms a varying proportion ranging from 9.4 per cent in shop A to 55.2 per cent in shop F, but a median of 26.2 per cent appears in the 14 custom shops studied intensively.[1] The stable portion of the working force, therefore, constitutes a much larger proportion in custom than in factory dressmaking, where the median of the two shops studied is 17.2 per cent.

---

[1] This haphazard method of securing workers is described by M. Aine as the prevailing situation in Paris. Les Patronnes, Employées, et Ouvrières de l'Habillement à Paris, par Aine, en Réforme Sociale (1898), Vol. V, p. 63.

[2] M. du Maroussem describes the three classes as (1) "ouvrières du noyau," who have an average working season of 260 to 300 days a year; (2) "ouvrières de la catégorie intermédiaire," who average 200 to 230 days; and (3) "ouvrières supplementaires," who average from 60 to 160 days. France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 494.

This nucleus force comprises the workers necessary for production, but all are not necessarily the highly paid. Waist, skirt, and sleeve workers, and tailors, where employed, are necessary in the nucleus force, while the head workers are usually retained through the shop season. A few of the less skilled receiving less than $10 a week also secure the long season.

TABLE 15.—OCCUPATION AND WAGE OF NUCLEUS FORCE IN FOUR LARGE CUSTOM SHOPS.

[Based on pay rolls.]

Case number.	Shop A.		Shop B.		Shop C.		Shop D.	
	Occupation.	Wage.	Occupation.	Wage.	Occupation.	Wage.	Occupation.	Wage.
1	Head fitter	$30	Head fitter	$45	Forewoman	$25	Waist draper	$19
2	Head tailor	30	Head waist	30	Head coat	15	do	19
3	Cutter and fitter.	25	Head skirt	24	Waist draper	13	Skirt draper	17
4	Tailor	21	Coat tailor	22	Head skirt	13	Waist finisher	15
5	Head skirt draper.	18	do	21	Head sleeve	12	Skirt finisher	12½
6	Fitter	18	do	21	Waist finisher	11	Waist finisher	12
7	Waist draper	16	Waist draper	16	Machine operator.	10	Skirt helper	10
8	Sleeve draper	14	do	16	Waist finisher	10	Stock	10
9	Shopper	12	Head sleeve draper.	16	Coat tailor	10	Waist helper	9
10	Designer	10	Office	15	Skirt finisher	8½	do	7
11	Waist draper	9	Coat	15	Waist finisher	7½	do	6
12	Clerical	8	Skirt	14	do	7		
13			do	14	Stock	7		
14			Waist	12	Finisher	6		
15			do	12				
16			Office	11				
17			Waist	11				
18			Sleeve	11				
19			Waist	11				
20			do	10				
21			Skirt	10				
22			Coat	10				
23			Waist	9				
24			Sleeve	8½				
25			Waist	8½				
26			Skirt	8				
27			Waist	8				
28			Office	8				
29			Waist	7½				
30			Skirt	6				

The less skilled workers form a varying proportion of the nucleus force, being 16.7 per cent in shop A, 26.7 per cent in shop B, 27.3 per cent in shop D, and 35.7 per cent in shop C. The medium-skilled workers can, in small numbers, thus obtain long working seasons in the large shop, a situation which enables a limited number to profit by the opportunities there offered for wider experience and advancement. Needless to say, those who are thus retained are the most valuable and promising workers.

---

[1] See Table 30. Those working 35 to 40 weeks in shops D and N are considered the core.

The second group of finishers and helpers, who are an essential part of the force but have two distinct seasons, constitute about 20 per cent of the force in custom dressmaking, and only about one-tenth (11.5 per cent) of the factory workers. The third group, the drifters and rush hands, working less than six months, claims the largest proportion of workers in both branches, more than one-half (58.2 per cent) of the custom workers and almost three-fourths (73.2 per cent) of the factory workers. An element of error enters into this figure which can not be checked up definitely because the group necessarily includes also those who left in the middle of the year because of illness, to be married, because of a quarrel with the forewoman, or because of some personal reason, but the proportions are probably approximate.

Three reasons are most frequently heard from workers for their choice of this trade as an occupation: natural taste and inclination, knowledge acquired at school, and advice of family or friends. Almost one-half (41.5 per cent) of the 200 women visited went into the trade because they had a natural taste for it and had always sewed at home. "It just came natural. I knew how to sew ever since I was a little girl, and always sewed at home," was the general statement, or "I just naturally knew how to sew. I wanted to get into some business with an opportunity for use and development." "I came to Boston, wishing to get office work," said one. "I could not get a place; sewing was natural to me, so I went into a dressmaking shop." This is frequently the reason influencing the woman suddenly thrown upon her own resources, who naturally turns to the work for which she has some natural capacity. "My husband died, and I must support myself and children," said a woman of 40. "I owned a little store, but I couldn't make it pay so I went into a large dressmaking shop where I run a power machine." "I have no father," said a young girl, "and I wanted to help put my small sister through school. I naturally took up the thing I liked and could do best." Some (10 per cent) had learned the fundamentals of sewing at school, either in the public school, private school, or convent, and naturally utilized the one accomplishment which could be turned to money-making. Many children who would otherwise have to go to work at 14 may be sent to a trade school at some sacrifice if they can within a limited time prepare themselves for a trade.

Initiative or advice of family or friends is also an important influence in determining a girl's career. The dressmaking trade, like millinery, carries a certain prestige not accorded other industries because it has an apparent relation to woman's much-talked-of sphere, because of the type of product, place and conditions under which the work is done, and because the social level is generally higher than that of factories. Parents, therefore, frequently determine for the girl that she shall be a dressmaker just as those of a higher social level decide the daughter shall become a teacher, because it is the "genteel" thing to do. "The family think it much nicer work for a girl than the factory." "Mother thinks it is the nicest trade for women." The prejudice against "the factory" in the families of the middle class of Boston and surrounding cities is a problem which has frequently baffled the directors of trade schools and vocational bureaus for girls.

Since the small wage and short season of the young worker brings a very small income, one is curious to know from what type of family these young workers come. For dressmaking is a trade which assumes a professional character and necessitates years of training and experience, and the majority of its workers, when entering the trade, must not of necessity be economically dependent on the trade itself, this being true of any occupation of a semiprofessional nature. The parent of the $4 and $5 worker ranges as to occupation from the laborer to the professional man, but the family income in the majority of cases is not large, and the nominal annual income of the young $5 worker ranges only from $152 to $238.

Yet the parents were putting their daughters into a seasonal trade which requires some years of experience before an adequate wage can be earned. Five girls contributed to the family income by turning their entire wage over to the mother, while others contributed something to the family and met part of their own expenses from their wage.

The attitude of the parents is, however, expressed by an Italian girl of 15 on a weekly wage of $5 who lived in a miserably dirty brick tenement house in a very poor neighborhood. "Mother likes dressmaking as a trade," she said. "She knows about the long vacations. It is hard for her if the children are out of work, and if they can find something to do she likes it better. But if not, she is willing that they should be at home." A girl of 17 on a $4 wage lived in a neat but poorly furnished home with her mother. She "had thought of bookkeeping, but mother didn't like the idea of girls working in offices, so when I couldn't finish high school, she wished me to learn dressmaking. I always liked sewing." The parents of these girls, while realizing the long period of apprenticeship and semidependence involved, often make the effort to give their daughters a training which they believe will give them "a good trade."

Whatever the motive for entering the trade, the woman who goes into a skilled trade does so because she has some taste or capacity for that kind of work or because she sees in it the opportunity for a profession. In this respect the worker in the skilled trade differs from the one in unskilled trades, who is very apt to have left school to go to work as soon as the law allowed, without any special guidance or inherent fitness for work. Proximity to a factory or an opening obtained through mother, father, brother, or sister who has worked there before seems to be the determining influence in the question of the factory child's future.[1]

But dressmaking does not invite the young girl just out of school with wide-open doors as do the unskilled trades, and for the same reason offers little opportunity to the old woman, because it is an art and a skilled trade which excludes the two extremes. One per cent of the 200 personally visited were under 16 years of age, though less than one-third of 1 per cent were reported as in this age group for the United States as a whole; 12.5 per cent of the 200 visited were under 18 years of age and but 8.5 per cent over 40. The census reports a large percentage of older women because of the "fact that dressmaking can be pursued at home by women whose household duties do not permit them to participate in shop or factory work,"[2] and all census returns by occupations necessarily include the women who go out by the day, who are women of more maturity and experience.[3] But since this study attempts to deal only with the professional worker and primarily the worker in the shop, the domestic worker has not been included and the dayworker only as a means of comparison. The majority of shopworkers are neither very young nor very old. Sixty per cent of the 200 visited were under 25 years of age and four-fifths under 35.[4] Miss Irwin reported that the ages of the more skilled workers in Glasgow range from 20 upward, one employer reporting the average marriage age about 24,[5] and M. Aine found the majority of custom workers in Paris "jeunes et gaies." "Few married women," he said, "work in the shops." "The personnel of the dressmaking shops is primarily young; one encounters on the other hand more elderly women in the cloak-making establishments."[6] The older woman who has never progressed beyond the $9 stage is occasionally encountered as an "extra" in the large shops or as a helper to the private dressmaker, but usually drifts, as she becomes more incompetent with increasing age, either into alteration departments, ready-made-clothing factories, or into home work for these factories. The main working force in custom dressmaking, therefore, by this process of elimination continues to consist primarily of comparatively young workers with a certain degree of skill.

---

[1] Bulletin of the United States Bureau of Education No. 17, 1913. A Trade School for Girls: A Preliminary Investigation in a Typical Manufacturing City, Worcester, Mass. Washington, 1913, p. 27.

[2] Special Reports of the Census Office, 1900. Statistics of Women at Work, p. 71.

[3] Census of Massachusetts, 1905, Vol. II, p. 155, which reports 3,284 (57.5 per cent) of the 5,711 dressmakers in Boston within the 25 to 44 years of age group.

[4] Carroll D. Wright in 1884 determined the average age of dressmakers (employers) in Boston to be 30.59 and of employees 26.48. Fifteenth Annual Report of Massachusetts Bureau of Labor, 1884. Working Girls of Boston, p. 39. This average is based on a small number of cases: Employers, 38 cases; employees, 62 cases.

[5] Women's Work in Tailoring and Dressmaking, by Margaret Irwin, Glasgow, 1900, p. 34.

[6] Les Patronnes, Employées et Ouvrières de l'Habillement à Paris, par Aine, en Réforme Sociale (1896), Vol. V, p. 69. Also Le Travail de Nuit des Femmes, par Georges Alfassa, en Révue de Paris, Sept. 15, 1904, p. 367.

Professional workers in custom dressmaking have, on the whole, gone to work at an early age. More than one-half (54 per cent) of the 200 visited began at the age of 16 or under, 14.5 per cent beginning at 14 or under,[1] but two influences, conditions in the trade itself, and legislation, are tending to advance the age at entrance.

TABLE 16.—AGE AT BEGINNING WORK, AS REPORTED BY WORKERS.

[Based on personal interviews.]

Age at beginning work.	Number.	Per cent.
13 years	7	14.5
14 years	22	
15 years	37	39.5
16 years	42	
17 years	37	29.0
18 years	14	
19 years	7	
20 years	11	8.5
21 years		
22 years	4	
23 years	1	
24 years and over	1	
Not reported	17	8.5
Total	200	100.0

The increasing complexity of the work and specialization of workers is resulting in the practical disappearance of the apprenticeship system or use of young workers, so there are continuously decreasing opportunities for girls under 16 years of age. Moreover, legislation requiring age and schooling certificates for minors between 14 and 16 at work and limiting the working day to eight hours in New York and Massachusetts is also lending its influence toward their exclusion.[2] More than one-fourth (29 per cent) of the workers visited began work between 17 and 19 years of age and 8.5 per cent did not go to work until 20 or over. "Girls should enter the trade young," say most dressmakers, though few wish to bother with "very young girls." Not all these girls who have gone to work at an early age went into the dressmaking trade immediately. One-fourth of the 200 visited had done some work previously, so they had not entered the dressmaking trade as early as the previous table seems to show.

---

[1] Carroll D. Wright in 1884 reported the average age at beginning work for employer dressmakers as 17.47 and employees 18.82. Fifteenth Annual Report of Massachusetts Bureau of Labor, 1884. Working Girls of Boston, by Carroll D. Wright, p. 39.

[2] New York Department of Labor, Twenty-sixth Annual Report of Bureau of Labor Statistics, 1908, Pt. I, p. 158.

The following table shows the earlier occupation of those who had worked at something besides dressmaking:

TABLE 17.—PREVIOUS EMPLOYMENT OF WOMEN IN THE DRESSMAKING TRADE.

[Based on personal interviews.]

Previous occupation.	Workers.	
	Number.	Per cent.
Professional: Teacher	1	2.0
Clerical: Office worker	1	2.0
Mercantile:		
Sales girl	4	
Check girl	1	
Bundle girl	2	
Total	7	14.0
Custom work:		
Millinery	3	
Embroidery	1	
Tailoring	1	
Total	5	10.0
Domestic and personal service:		
Housework for pay	4	
Housework at home	6	
Waitress	1	
Child's nurse	5	
Lady's maid	1	
All kinds	1	
Total	18	36.0
Manufacturing:		
Machine-made clothing	7	
Miscellaneous	11	
Total	18	36.0
Grand total	50	100.0

Three lines of work, personal and domestic service, manufacturing, and that in mercantile establishments, provided transitory or juvenile employment for the majority of workers who had been previously employed. Personal and domestic service is especially an opening for young foreign girls who do not know the English language. "I have done all sorts of things, anything to learn the language," said a young Swedish girl, "first housework, then second girl, cook, lady's maid, and combination of lady's maid and family seamstress." Finally, she was a finisher in a large dressmaking establishment, earning $7 a week. A young Scotchwoman, however, who was not handicapped by language difficulties, had been caretaker of a house when she first arrived, then plain sewer at $6, filling in her summers with housework and taking care of children, and at the end of 12 years had risen to the position of head waist girl in a large dressmaking shop with a weekly wage of $30.[1]

---

[1] Additional illustrative cases of girls who have had previous employments:

Case A.—Born and educated in Sweden; came to Boston at age of 15; housework 4 to 5 years, $5 a week; at present, age 26, head sleeve girl in small shop, $10 to $12.

Case B.—Born and educated in Newfoundland; came to Boston at age of 19; spent 10 years in various kinds of work: Shoe factory, $6 to $7 a week; lady's maid, housework, seamstress; now head of shirtwaist table in middle-class shop, $12 a week.

Young girls frequently begin work early as child's nurse until they have reached a more mature age, while the older woman has frequently spent her earlier life in the home, taking the place of the mother who has died. After the family has grown and scattered she enters the sewing trades in which she has acquired some experience in her home duties.

Temporary or immediate economic pressure often forces young girls into the undesirable trades. Some find a way out but others, once there, are there for life. A young dressmaker of 33 whose father had died when she was 6 years old, leaving her mother, younger brother and sister and herself to work out the problems of their existence, could not finish school and went to work when only a child in a factory. She drifted from factory to factory and at the age of 19 found herself working in a gelatine factory for $6 a week. "I realized that I could stay there forever and never make more than $6. The youngest and poorest worker could earn $6 a week as well as the oldest and best." A friend in a dressmaking shop offered her an opportunity to learn the trade. She entered the shop as errand girl at $3 a week. At the end of 14 years she was head sleeve girl in a large fashionable shop at $15 a week and filled in her vacations by "going out by the day" at $2.50 a day.

A thoughtful woman of 40 had gone to work in a shoe factory at the age of 14 and worked there for 16 years. "I used to wonder what I could do which would offer better opportunities and possibilities when I really settled down for my real life work." She "always knew how to sew" and decided to go out sewing by the day. Gradually she realized the need of more knowledge and wider experience and through a customer secured a position in a large shop in Boston where she learned "the system." After going out by the day for several years, she tried going into business for herself, but could not meet the capital problem. "Customers insisted on running bills from six to ten months. They would go away for the summer and not pay their spring bills until fall. So I had to give that up and became head sleeve girl in a small shop, receiving $12 a week."

Mercantile establishments had provided juvenile employment for 14 per cent of the workers who had had a previous trade. The young workers had been check and bundle girls and the older women, sales girls. Ten per cent had worked in the closely allied needle trades, millinery, embroidery, and tailoring, while 4 per cent had done professional and clerical work before entering the dressmaking trade.

The majority of women employed in some previous work had been engaged in something having little or no connection with their subsequent skilled trade. They had gone to work, blindly, either from choice or necessity. Some had gradually felt the need of a better trade with wider opportunities and found their way out through their own initiative while others had been pushed into dressmaking through efforts of their friends.

While the majority of workers in the dressmaking trade—about four-fifths of the 200 visited in Boston—are or must be content with elementary schooling, almost one-fifth of those visited in Boston, as shown in the following table, had had further education.

TABLE 18.—SCHOOLING OF 200 WORKERS IN THE DRESSMAKING TRADE.

[Based on personal interviews.]

School and grade.	Workers.	
	Number.	Per cent.
University graduate	1	0.5
High school:		
Graduate	8	
3 years	3	
2 years	5	
1 year	13	
A while	2	
Night school	3	
Total	34	17.0
Grammar school:		
Graduate	44	
9th grade	3	
8th grade	8	
7th grade	10	
6th grade	5	
Not specified	32	
Total	102	51.0
Commercial school	2	1.0
Catholic schools:		
Convent	2	
Parochial	8	
Total	10	5.0
Private schools	3	1.5
Country schools and schools in other States	11	5.5
Foreign schools:		
Belgium	1	
British-American Provinces	12	
British Isles	5	
Norway and Sweden	4	
Russia	2	
Portugal	1	
Total	25	12.5
Unclassified	12	6.0
Grand total	200	100.0

The majority of those having more than an elementary schooling had gone to high school, one was a university graduate, one came from a fashionable girls' seminary, and two had attended a commercial college. A few others might have had further schooling, but "never cared much for books." Forty per cent of the 54 workers studied in the shops of Worcester were high-school girls, and 39 per cent from the ninth grade. The girls in the dressmaking trade of a city like Worcester are from distinctly a higher social stratum than those found in the manufacturing industries. Many came from families where financial pressure did not prematurely force them into the industrial world, yet when they were ready to earn their living, the custom trades, dressmaking and millinery, seemed the only or most desirable openings available.

Whether the higher educational status in the dressmaking trade represents a definite and commensurate cash value would be difficult to determine from the 200 cases visited, for many influences such as length of experience, physical condition, artistic sense, and administrative ability complicate the problem. It might be suggested, however, that the higher educational status and higher wage scale observed in custom dressmaking doubtless have some relation.[1] And a very obvious relation may be seen between the educational status and the higher social status which characterize the dressmaking trade, raising it above the manufacturing industries.

Nationality is also an interesting factor in determining success and advancement. But 4 of the 24 foreign born and bred who were personally visited earned less than $9, and two of these were less than 20 years of age and had had but 2 years' experience. More than one-half (58) of the 100 firms visited expressed a distinct preference for girls of foreign birth or descent, especially Irish, Swedes, and Nova Scotians; and their reasons are sometimes most suggestive. One of the large fashionable dressmakers prefers "European girls trained in the trade schools of Europe." Another says, "Foreign girls are the best workers. They are willing to adapt themselves to shop conditions. They are anxious to learn, are quick and bright. A little Austrian girl who could not speak the English language started in with me four years ago on $1 a week. She is now making $8 a week." "I have had two Italian girls this year," said another, "who were trained in the shops of Venice. They are the best workers I ever had." The superiority of trade training on the continent and the greater facilities for obtaining it are, in the opinion of English students of the subject, the explanation of the superiority of the European worker,[2] which in turn explains the greater demand for her services.

Forty-three per cent of the 5,711 women dressmakers reported in Boston in 1905 were foreign born, and almost three-fourths (71.8 per cent) were of foreign parentage.[3] This predominance of women of foreign descent is probably due to the fact that sewing is still more prevalent in the homes of these people than among Americans of native parentage, and still occupies an important place in the schools and convents, so that the sewing trades offer the obvious opportunity for a livelihood. The men in the trade, though relatively few, are practically all (90.9 per cent) foreign born, the majority being Russian Jews. Of the women of foreign parentage, 30.2 per cent were Irish and 20.2 per cent British American, only 5 per cent being Russian or Italian.

---

[1] See forthcoming bulletin of the United States Bureau of Labor Statistics on Industrial Efficiency of Girls Trained in Massachusetts Trade Schools.

[2] Boy and Girl Labor, by N. Adler and R. H. Tawney, London, 1909. London County Council, Women's Trades. Fifteenth Report of the Education Committee of the London County Council (1906), by Mrs. Oakeshott, p. 16.

[3] Census of Massachusetts, 1905, Vol. II, Occupations. p. 155. Forty-five per cent of the 6,568 reported in 1910 were foreign born and 73.3 per cent were of foreign parentage. United States Census, 1910. Occupation Statistics, p. 473.

According to the United States census for 1900,[1] women of French parentage formed the largest proportion of women in the trade. Very few such women were found among the dressmakers of Boston, and in the State as a whole they formed, according to the Massachusetts census of 1905, less than 1 per cent of those in the trade. Several years ago the largest and most exclusive shop in Boston tried the experiment of importing several expensive dressmakers from Paris to take charge of the dressmaking department, but after several years' experience the firm was forced to admit the scheme a failure. In spite of American dependence on Paris, Parisian creations must be modified and Americanized to meet popular acceptance, and the conclusion from long experience is that Americans or Americanized women best know and appreciate American needs, demands, and tastes.

Both the industrial and living conditions of the workers in the dressmaking trade contribute to individualism and isolation and make organization or cooperative action difficult. While the workers in certain trades, such as machine-made clothing and many manufacturing industries, congregate to a marked degree in certain sections of the city, those in the custom dressmaking trade of Boston are to a large extent suburbanites. To the north, the south, the east, and the west they were found in neighboring suburbs and even in surrounding cities. The character of the industry partially explains this situation. The workers are presumably in the trade because of some aptitude for the work, hence go to the city where lies the best opportunity for development. The worker in the unskilled industry may take one kind of work as well as another and usually chooses that near home or easily accessible. The working force of certain industries, especially the unskilled, are, moreover, characterized by certain racial groups which tend to congregate in particular neighborhoods, but dressmaking is the meeting place of a great variety of social and racial elements.

The majority, over three-fourths of the 200 workers visited, lived at home; 137 of these formed a part of the family group, while 16 were in homes of their own.

---

[1] United States Census, 1900. Statistics of Women at Work, p. 71.

TABLE 19.—LIVING CONDITIONS OF 200 WORKERS PERSONALLY VISITED.

Living conditions.	Number.	Per cent.
With family.		
Contributing:		
Supporting family	17	8.5
All of wages	43	21.5
Part of wages	34	17.0
Paying board	8	4.0
Service	[1] 2	1.0
Total	104	52.0
Not contributing	8	4.0
Not reporting as to disposition of wages	25	12.5
Total, living with family	137	68.5
Boarding.		
In subsidized homes	12	6.0
With relatives	6	3.0
With friends	8	4.0
With others	20	10.0
Total	46	23.0
Housekeeping.		
Cooperative	5	2.5
Independent	11	5.5
Total	16	8.0
Unclassified	1	.5
Grand total	200	100.0

[1] These 2 contributed by sewing for the family.

A small number, 17, of those living with the family group, had dependents such as a widowed mother or invalid sister. None earned less than $9, though one-half did not exceed $12. The 16 in homes of their own have been tabulated under the heading "housekeeping." Two were mothers with two children dependent on them, one earning $18 and one but $9. The young son of the latter earned $5. Five formed part of a cooperative scheme, where several brothers and sisters with neither mother nor father maintained a home on the cooperative basis, each contributing to a common housekeeping fund.

To what extent the family may be dependent on the young worker it is difficult to determine. While her small wage in many cases was a very helpful supplement to the family income, yet the family could subsist in case of the child's illness or idleness during slack season. Twenty-five of the 137 workers living with their families made no report as to the disposition of their earnings. The extent to which the remainder used their wages for family purposes is shown by the following table.

TABLE 20.—EXTENT TO WHICH WORKERS LIVING AT HOME CONTRIBUTED TO THE FAMILY INCOME.

[Based on personal interviews.]

Contribution.	Workers.	
	Number.	Per cent.
Supporting family	17	12.4
Contributing all wages	43	32.1
Contributing service	[1] 2	1.5
Contributing part wage	34	24.8
Paying board	8	5.1
Making no contribution	8	5.9
Not reporting	25	18.2
Total	137	100.0

[1] These 2 contributed by sewing for the family.

The majority of those who contributed all their wages to the family were not over 21 and did not earn more than $8, though a German girl of 23 and an English girl of 22, each earning $10 a week, turned in the pay envelope untouched. Among those who turned in part of their wages, the contribution ranged from one-fifth to five-sixths of the wage, the rest being retained for personal expenses, such as clothes and carfare. More than three-fourths of these were over 18 years of age, but the income of almost two-thirds of them was less than $9.

A very small proportion (5.9 per cent) contributed nothing to the family income. One girl of 20, earning $6 a week, said her money was her spending money. The parents of the others were able and willing to give the girl experience in managing her own finances, from which she clothed herself and paid all expenses except board. But one of this group was over 20 years of age. A girl of 17, earning $6, gives her mother $2 when she wants it, but usually uses her earnings for her own expenses. Another girl of 19, earning $8.50, gives "some to the family, according to what it needed." Four girls, earning $6.50, $7, $12, and $13.50, "pay board while working." An equally small proportion (5.1 per cent) controlled their own incomes from which they paid board to the family, all being 20 or more years old.

Married women, as M. Aine reported for Paris, form a small proportion of the custom workers in Boston. But 2½ per cent of the 200 visited and 6 per cent of the 545 (16 years of age and over) studied from the pay rolls were married women. However, they constituted three times as large a proportion (17.6 per cent) of the 500 factory workers studied from pay rolls. These statistics corroborate conclusions drawn from study of the trade both at home and abroad—that, in general, the older women and those who have had to reenter the industrial field find more opportunity in the less skilled branch of the industry.

Less than one-fourth of the 200 workers personally visited could be termed "adrift" and almost one-third of these lived with relatives or friends, showing the desire for connection with some family group. One-fourth of this group lived in subsidized boarding houses for women, doubtless because of the low cost of living but perhaps to some extent because of the social life offered. Slightly more than half earned less than $9, the remainder earning more. Combining the workers living in subsidized houses with those living with relatives and friends, more than one-half of this group may be said to be questionably independent.

The great majority of the workers visited are therefore "women living at home" and their homes provided an interesting sociological study, ranging from an attractive suburban residence surrounded by ample lawn and beautiful flowers to a miserable tenement in a poor and crowded section. The visitor could often form little conception from a glance about the house of the type of girl she might expect to see. A ring at the door-bell of a tumble-down frame house in one of the poorest sections of the city might be answered by a well-dressed girl with the unquestionable "air" of one who comes in contact with people of refinement. She was a fine lady to her sister who worked in a factory and to the rest of the family, who had not had her opportunities to see, to imitate, and to develop ease of manner, and good taste in dress.

In general, the beneficent influence of the better industry was apparent. The girl from the poor uncultured home most certainly profits by her experience in the custom shop. Contact with a class of workers superior to that in manufacturing industries, experience in handling beautiful materials, incidental if not actual connection with artistic creation, and training in a trade which she can utilize in her everyday life undoubtedly give her an advantage which is apparent.

ATTITUDE TOWARD UNIONS.

Social gradations, industrial conditions, the predominance of women, and the recent development of the trade from its domestic stages all militate against organization, so characteristic of the other branches of garment making but lacking in the custom dressmaking trade. Although an organization called the Ladies' Tailors' and Dressmakers' Union existed in Boston at the time of the investigation, it was composed almost entirely of men and represented largely tailoring shops where there was much overtime and nightwork. The women who were approached on the subject of unionism expressed contempt for and superiority over such connection. This attitude of the women custom workers is due to various causes. First, custom dressmakers are of a higher social stratum and feel superior to the factory workers, among whom unionism has made greatest progress. Second, they know little of the purpose and meaning of unionism, which to them in their ignorance means strikes and disorder. Third, they have not felt the need of organization because they are not exposed to the many petty grievances faced by the factory worker, since owing to the character of the work and size of the shops, fines, piece wage, "cuts," and "speeding up" have not been developed. Fourth, the comparative isolation of the custom worker in the small and medium-sized shops which have been characteristic of the trade does not tend toward community of understanding and cooperation among the workers of the trade as a whole. As dressmaking develops toward greater industrialization, unionism will doubtless make more progress. The conditions in the industry itself up to the opening of the twentieth century have militated against such progress.

The labor problem of the dressmaking trade, however, menaces the existence of the industry, where the disappearance of the apprenticeship system has not been followed by other adequate means of training and preparing workers for the trade, though the development of the trade itself has increasingly demanded greater skill and ability. Provision of an adequate working force has become one of the great problems for solution, for the welfare both of the trade and of the individual worker. Difficulties in the way are the incapacity of the mass of workers to meet the demands of the trade, the seasonal character of the industry, the lack of system and proper arrangement of work in individual shops, and a maladjustment of the labor force due to the lack of an adequate labor and information bureau through which can be realized the necessary connection between demand and supply. While sewing is a natural resort for women, not only for the young women who are directed into it because it seems to be a "genteel" occupation but for many untrained women thrown upon their own resources, many are unable to measure up to the requirements. An adequate system of specialized training or an efficient bureau of guidance and direction might save both these types the misfortune of failure and find for them the opening for which they are best fitted.

Since dressmaking is such a skilled trade that it can utilize very few young girls, many who must earn as soon as the law allows must first enter unskilled industries, which always offer wide-open doors to the immature girl. While the capable and more ambitious may graduate from these unskilled industries, very few do or are able to, because they do not know what industries offer opportunities for advancement, or how or where to secure training for something better, or because they are too tired to take advantage of such training after a long working day of nine or ten hours. Four social agencies are, therefore notably needed at the present time: (1) Day trade schools which can hold and train the child whose parents can dispense with her small earnings until she is 16 years old; (2) social agencies which can keep ambition and courage kindled in the child who must go to work at 14 in unskilled industries, and can develop the desire for additional training and advancement; (3) bureaus of information, vocational advice and guidance to show what industries offer good opportunities for advancement, the requisite qualifications and ways of developing these qualities, and to make connections between employer and worker; and (4) educational agencies providing part-time schooling in the daytime for the young workers and more advanced systematic night schools for the older workers employed during the day.

CHAPTER IV.

IRREGULARITY OF EMPLOYMENT.

THE SEASONS.

Irregularity of employment in dressmaking depends upon two main factors, the seasonal nature of the trade and the character of the individual worker. In other words, seasonal fluctuations and the instability of the working force both have a part in causing irregular employment.

The social life of a community largely determines the dressmaker's season. The tendency of the wealthy class to live in the city only about six months in the year and to spend an ever-increasing length of time in the country, causes social festivities to concentrate within the months of November to January. Upon return from the country in the fall, the feminine element deluges the dressmakers with orders for new gowns which must be completed within these few months. Again in the spring, the first warm day, June weddings, college commencements, preparation for a trip abroad or for a sojourn in the country, all bring in a rush of orders from March to June. But a beautiful autumn may tempt people to stay in the country later than usual or a cold, rainy spring may delay the demand for new summer clothes, thereby affecting the welfare of thousands of workers, for they are not employed until there is work for them to do.

Moreover, changes in the habits and customs of the people mean new adjustments for those who serve them, and especially is this true in the custom dressmaking trade where the relationship is direct and no intermediate agency equalizes the fluctuation of demand and supply. The general use of automobiles is making a serious invasion in the trade, because this prevalent outdoor pastime decreases the need for fancy indoor gowns, which largely constitute the work of the custom dressmaker. The opera in Boston during the last few years has, on the other hand, greatly increased the amount and value of product. The earlier exodus to summer resorts brings an earlier end to the spring "busy season" and the later return to the city in the fall a later opening of the shops for the winter season. The increasing exodus to the South in midwinter, on the other hand, has lengthened the winter season in Boston. "The winter season formerly was on the decline by Thanksgiving," said a dressmaker of long experience; "now it lasts through December and in some shops well through January. Customers must have new clothes suitable to the southern climate, and their orders help fill in the slack season."

Business men and women, the Parisian arbiters of fashion, have still further involved this complex interdependence of the worker and purchaser for their own profit. Taking advantage of the fact that women of many parts of the world look to Paris for the fashions, they have formed a close corporation for mutual protection against the commercial competition of other cities, and have agreed to exhibit the new styles in models and fashion books only at specific dates. No models for summer gowns are shown before February 1, or for winter gowns before August 1; for summer cloaks before January 15 or for winter cloaks before July 15.[1] Buyers for the United States and western Europe, therefore, gather in Paris between January 15 and February 15, and between July 15 and August 1 to learn the new styles, and manufacturers, dressmakers, and the fashionable world await in respectful inactivity the decrees of the great designers.

The frequent and abrupt changes in style decreed by Parisian fashion leaders may greatly affect the seasons of individual workers. The vogue of "princess" and whole dresses meant "out of work" earlier for the specialized skirt workers, who made no claim to work on waists with artistic lines. The "kimono sleeves" meant small need of specialized sleeve makers, for the waist girl made the sleeves with the waist. The dainty chiffons left small opportunity for the plain finisher, as the delicate, perishable materials must be handled with deft and skilled hands. The increased use of embroidery trimmings offered occupation to the foreign girls and women who do beautiful handwork, some of them working in their own homes.

Dependence on Parisian fashion with its consequent congestion of the working season is largely due to the customer. The ultrafashionable dressmaker whose customers insist on the latest Parisian whims must wait for the new models. "If I had two models side by side, one of my own and one of Parisian make, the customer would choose mine, if she was not aware that it was American made, but if told, of course would wish the Parisian model," said one dressmaker. "One must have 'models'" (which always means Parisian models), say all dressmakers who cater at all to fashionable people; so they must go to Europe once or twice a year, and the workrooms frequently are idle until their return. Social festivities then come with a rush, and the workrooms are suddenly transformed from barren, deserted rooms to crowded, busy workshops and hundreds of orders are rushed through at high speed. The work is soon turned out and the workers are rapidly laid off. The less "exclusive" shops depend on importers who bring the models from Paris to New York, while the still more modest dressmakers depend on fashion books and shop windows for the new styles. The dressmaker who caters to the middle and lower classes is much less bound by Parisian decrees, and as a result has a longer and more regular season. The small dressmaker who is clever and has good taste and inventive genius makes her own "Paris models" in the dull season, or persuades her customers that there is to be little change in the styles of evening gowns, and since they do not desire the latest freaks of fashion, she is not delayed by waiting for Parisian mandates.

---

[1] L'Industrie de la Couture et de la Confection à Paris, par Léon de Seilhac, p. 29. A new and more rigid syndicate has been organized by Paul Poiret during 1915-16. See report in New York Times, Jan. 23, 1916.

The working, or "busy, seasons" vary for different localities, different shops, and different years,[1] but on the whole the orders for summer work tend to come in from March to June and for the winter work from September to December. The two seasons, spring and fall, characterize the dressmaking trade. The working force is gradually taken on through March and reaches its maximum in April and May. During the five months, April to August, which mark the heights and depths of the dressmaking season, the maximum number employed during the year has been gathered into the folds of the trade and scattered again to the four winds. While there is a precipitous drop in the number employed in June, July, and August, an equally rapid rise occurs in September and October, when the workers are again assembled for the winter's work, and the season reaches its height in November. However, the decline in January and February is never so great as in summer, as the majority of shops resort to various makeshifts to hold their best workers for the coming spring season.

An intensive study of the pay rolls of 14 custom shops in Boston, chosen so as to include varied types, shows a striking similarity to the seasonal fluctuation reported by the United States census.[2] This is plainly shown in the following table:

TABLE 21.—AVERAGE NUMBER OF WORKERS EMPLOYED IN CUSTOM DRESSMAKING IN THE UNITED STATES IN 1900,[a] AND IN 14 SHOPS IN BOSTON IN 1910,[b] BY MONTHS.

Month.	United States.		14 shops in Boston.	
	Average number.[c]	Per cent of median number.	Average number.[c]	Per cent of median number.
January	39,593	80	256	94
February	38,345	78	257	95
March	48,349	98	268	99
April	56,700	115	319	117
May	57,596	117	314	115
June	50,412	102	275	101
July	34,076	69	181	67
August	23,615	48	11	4
September	39,159	79	150	55
October	52,276	106	275	101
November	54,962	111	329	121
December	52.057	105	296	109
Median number	49,381	100	272	100

[a] Calculated from United States Census, 1900. Manufactures, Vol. VIII, Pt. I, p. 54. (Men, women, and children combined.)

[b] From pay rolls of 14 Boston shops, September, 1910, to September, 1911.

[c] The average number employed each month is secured by adding the numbers employed each week during the month in each of the shops, A, B, etc. (see Table 23), and dividing this total by the number of weeks worked that month for each individual shop; the resultant monthly averages in the 14 shops are added for the total average number employed each month in the combined shops. This method makes the monthly averages comparable with those secured by the census from individual employers.

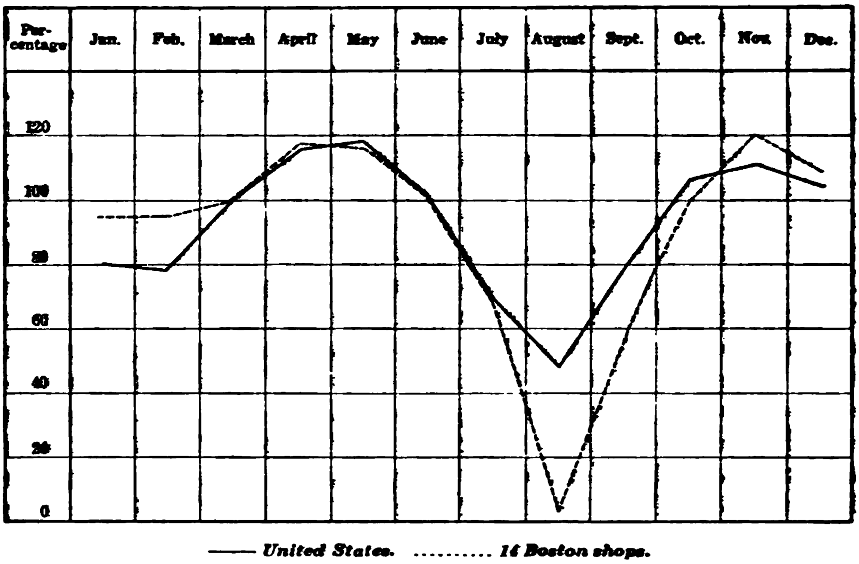
---

[1] Miss Irwin, in her study of the trade in Scotland, recognized this fact. "The busy and slack seasons in the dressmaking trade are naturally largely dependent on social and local causes in different districts." Great Britain, Royal Commission on Labor, 1893. Conditions of Work in Scotland, by Margaret Irwin, p. 292.

[2] See Chart A.

CHART A.—FLUCTUATION OF THE WORKING FORCE, BY MONTHS, IN CUSTOM DRESSMAKING IN THE UNITED STATES IN 1900[1] AND IN 14 SHOPS IN BOSTON IN 1910.[2]

[Based on Table 21.]



The curve for Boston does not drop as low in the dull winter months of January and February as that for the United States as a whole, but falls lower in August. Almost exactly the same variation appears between the curves for custom shops in London and for the United Kingdom as a whole.[3] These differences may be partially due to the fact that on the one hand the majority of Boston dressmakers attempt by various expedients to tide over the dull winter season because of the scarcity of good workers and the danger of laying them off, and, on the other hand, the established custom among the wealthy and middle classes of Boston of spending the summer out of town results in little or no demand in the summer months.[4] Moreover, this variation may be due not only to the difference in demand among the city and the country people as a whole, but also to the fact that the fluctuations of employment over a larger area neutralize each other and smooth the curves.

The two branches of the women's clothing trade have different working seasons. The factory dressmaking busy seasons precede those in custom dressmaking, since the ready-made gowns must be completed, shipped to their destination, and placed on sale in time to meet the demand for new winter and summer clothes.[1]

---

[1] United States Census, 1900. Manufactures, Vol. VIII, Pt. I, p. 54.

[2] From pay rolls of 14 Boston shops, September, 1910, to September, 1911.

[3] Clothing and Textile Trades. Summary tables by L. W. Papworth and D. N. Zimmern, published by Women's Industrial Council, London, 1912. (Summary tables based on census returns.)

[4] These Boston returns do not cover any private dressmakers, because none could be found who kept pay rolls, but they are for that reason more comparable to the census returns, which do not include dressmakers working in their homes or turning out an annual product of less than $500.

The following table shows the difference between the two branches in this respect:

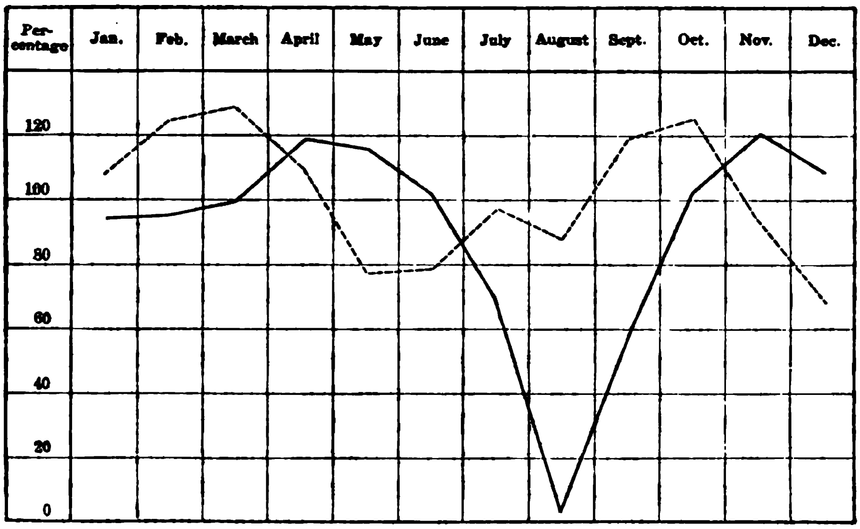
TABLE 22.—AVERAGE NUMBER OF WORKERS EMPLOYED IN 14 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS IN BOSTON, BY MONTHS.

[Based on pay rolls.]

Month.	Custom shops.		Manufacturing shops.	
	Average number.	Per cent of median number.	Average number.	Per cent of median number.
January	256	94	164	108
February	257	95	189	124
March	268	99	194	128
April	319	117	166	109
May	314	115	116	76
June	275	101	121	80
July	181	67	141	93
August	11	4	132	87
September	150	55	180	118
October	275	101	189	124
November	329	121	137	90
December	296	109	105	69
Median number	272	100	152	100

CHART B.—FLUCTUATION OF THE WORKING FORCE, BY MONTHS, IN 14 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS IN BOSTON.

[Based on Table 22.]



—— Custom shops. .... Factories.

The factory force is, therefore, being taken on in January when custom workers are being laid off and the busy season reaches its height in March, one month ahead of the custom season. After a reduction of the working force of factory dressmaking in April and May, it increases with more or less fluctuation through the summer months, June, July, and August, but it is not until September that the orders of timid and uncertain merchants justify a definite increase. In October the height of the fall season is reached, one month earlier than in the custom branch.

---

[1] See Chart B.

The difference in seasons in custom and factory dressmaking would seem to offer a good opportunity for dovetailing work in custom shops and factories, but the opportunity is not so great as appears on the surface. First, the seasons overlap, the factory season beginning about one month earlier but not ending before the custom season begins. Employers are averse to employing workers who will not remain through the season, and the worker, once located, frequently remains rather than change. Second, the methods of work in custom and factory dressmaking are very different. Custom dressmaking is largely fine handwork, and great care is required in basting, measuring, and fitting. Factory dressmaking is largely machine work, which necessitates skill and experience in putting the parts together quickly without basting, and running them through the machines rapidly and accurately. The handwork in the factory is for the most part very elementary, such as sewing on buttons, snipping threads, etc., though the work of drapers, who constitute less than 15 per cent of the force, is more closely akin to custom work.[1] Machine operators, however, dovetail work in custom shops and factories fairly well.[2]

The range of seasonal fluctuation is less marked for the shop force in factory dressmaking (128 per cent to 69 per cent) than in the custom branch (121 per cent to 4 per cent), since the manufacturer need not wait for the order of the individual wearer to utilize his large and expensive plant. Because the factory works 52 weeks in the year while the custom shop has a usual year of 40 weeks, and because the fluctuation of the force as a whole is less marked, the impression has become established that factory dressmaking offers steadier and more continuous work for the individual workers. Intensive study of fourteen custom shops and two factories which seem to be representative types do not bear out this supposition.

Individual shops show a great variation in working season. The dates of opening and closing, the steadiness of the force during the working season, and the length of the busy season and of the working year vary widely in different shops. Only two of the fourteen shops in Boston from which pay-roll records were taken were open the first week in September and the last week in August. Six of the fourteen shops opened the second week in September, one the third week, three the fourth week, one the first week in October, and one the second week in November, while even greater variation is observed in the date of closing. But the different types of shops have characteristic working seasons which become apparent from the study of 139 establishments in Boston and surrounding cities.

---

[1] Drapers constituted 14 per cent of 215 factory workers employed in week of maximum employment.

[2] L'Industrie de la Couture et de la Confection à Paris, par Léon de Seilhac. M. Seilhac also points out the possibility for dovetailing work in custom shops with work in ready-made clothing factories in Paris.

The following table giving the weekly working force throughout the year in 16 establishments studied in Boston shows the extent of these differences:

TABLE 23.—NUMBER OF WORKERS EMPLOYED IN 14 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS IN BOSTON, BY WEEKS.

[Based on pay rolls, September, 1910, to September, 1911.]

Month and week.[1]	Number employed in specified—																	
	Custom shops.															Manufacturing shops.		
	A[2]	B	C	D	E	F	G	H	I	J	K	L[2]	M	N	Total.	X	Y	Total.
September:																		
1st week	....	....	....	....	....	....	....	....	....	2	....	2	....	....	4	22	145	167
2d week	9	3	6	....	....	6	3	....	2	10	....	2	....	....	41	20	155	175
3d week	25	27	12	....	....	13	7	....	2	11	6	3	....	....	106	29	153	182
4th week	51	46	28	....	10	20	17	12	5	10	6	7	1	....	213	35	160	195
5th week	62	....	....	....	....	....	16	14	7	....	....	4	7	....	110	....	....	....
October:																		
1st week	61	50	28	....	20	22	17	18	10	10	6	7	7	4	260	30	158	188
2d week	59	54	25	....	21	22	17	21	11	11	6	7	7	5	266	33	151	184
3d week	61	57	30	....	24	23	17	20	11	14	8	7	7	5	284	37	153	190
4th week	50	57	31	....	24	23	19	19	13	14	9	6	7	6	278	37	159	196
5th week	....	56	29	....	24	22	....	....	....	14	8	....	....	6	159	37	147	184
November:																		
1st week	60	56	30	....	25	22	20	20	14	15	10	5	8	7	292	37	145	182
2d week	61	57	31	34	24	23	20	20	16	16	9	5	8	6	330	35	120	155
3d week	59	60	32	31	25	24	20	19	16	17	9	5	8	6	331	24	87	111
4th week	54	61	32	31	25	24	21	18	16	17	10	5	8	6	328	23	76	99
5th week	....	....	....	....	....	....	....	....	....	....	....	....	8	....	8	....	....	....
December:																		
1st week	50	61	30	31	27	24	27	18	14	16	10	5	8	6	327	21	98	119
2d week	46	65	30	28	27	24	24	17	13	15	10	4	8	5	316	21	111	132
3d week	38	62	31	31	29	24	24	16	12	15	10	4	8	5	309	10	103	113
4th week	35	62	27	29	29	24	22	16	12	14	10	4	8	4	296	8	97	105
5th week	21	58	26	18	22	23	19	13	6	....	10	3	....	5	224	....	41	41
January:																		
1st week	18	62	22	25	25	23	19	22	8	14	6	4	8	4	260	11	120	131
2d week	18	55	22	27	24	22	16	22	12	13	5	4	7	4	251	14	149	163
3d week	19	54	22	26	24	22	13	22	13	13	9	4	8	4	253	18	161	179
4th week	20	54	24	26	22	24	12	22	14	13	9	4	9	4	257	15	166	181
5th week	....	....	....	....	....	....	....	....	....	12	....	....	....	....	12	16	....	16
February:																		
1st week	30	52	25	8	25	24	12	21	4	11	9	....	9	3	233	16	171	187
2d week	37	51	26	26	26	24	10	20	14	11	9	....	9	3	266	18	178	196
3d week	36	42	23	27	26	23	12	20	15	11	9	1	9	3	257	21	169	190
4th week	34	28	25	27	26	25	12	20	15	13	11	2	9	3	250	29	153	182
5th week	....	....	....	....	....	....	....	....	....	....	....	....	9	....	9	....	....	....
March:																		
1st week	38	6	29	31	27	25	12	19	15	13	11	....	9	3	238	37	158	195
2d week	39	6	27	27	25	25	11	19	15	14	11	....	9	3	231	35	157	192
3d week	44	38	29	29	28	26	13	20	14	14	11	2	9	3	280	33	164	197
4th week	49	52	35	30	25	27	14	20	16	13	11	3	9	3	307	32	158	190
5th week	....	....	....	....	....	....	....	....	16	....	....	3	....	....	19	....	....	....
April:																		
1st week	48	54	34	30	26	27	16	22	17	14	11	4	10	4	317	30	154	184
2d week	46	56	31	32	25	26	15	22	16	14	11	4	10	4	312	28	147	175
3d week	49	57	33	31	28	26	15	22	16	14	11	4	11	4	321	29	142	171
4th week	51	58	30	30	26	25	17	22	17	14	11	5	11	4	321	28	137	165
5th week	51	58	30	31	27	25	15	19	....	....	11	....	....	4	271	27	107	134

[1] The variation in the number of weeks in the month in different shops is due to the fact that the pay day varies. Some shops close the books Thursdays and some Fridays.

[2] A and L are commercialized shops.

TABLE 23.—NUMBER OF WORKERS EMPLOYED IN 14 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS IN BOSTON, BY WEEKS—Concluded.

Month and week.[1]	Number employed in specified—																	
	Custom shops.															Manufacturing shops.		
	A[1]	B	C	D	E	F	G	H	I	J	K	L[1]	M	N	Total.	X	Y	Total.
May:																		
1st week	52	59	31	31	26	24	15	22	16	13	11	4	11	4	319	26	100	126
2d week	51	58	29	29	28	23	16	23	16	13	11	5	9	4	315	26	83	109
3d week	50	57	28	30	25	23	15	23	18	13	11	6	9	4	312	25	86	111
4th week	46	58	27	28	26	23	15	21	18	13	11	8	9	4	307	25	93	118
5th week	....	....	....	....	....	....	....	....	....	13	....	....	....	....	13	....	....	....
June:																		
1st week	38	57	26	27	22	23	15	21	18	13	11	8	9	4	292	26	95	121
2d week	32	57	25	26	25	23	15	23	19	13	9	7	9	4	287	25	96	121
3d week	27	56	23	25	21	23	15	23	18	13	7	7	9	4	271	25	96	121
4th week	18	52	23	23	22	22	15	23	18	13	7	5	9	4	254	25	91	116
5th week	17	....	....	....	....	....	....	....	19	....	....	....	7	....	43	....	99	99
July:																		
1st week	18	46	20	22	14	18	13	21	19	12	7	5	7	....	222	24	99	123
2d week	15	44	17	19	....	12	9	18	18	9	6	5	6	....	178	24	118	142
3d week	12	41	10	16	....	....	6	19	....	7	6	3	6	....	126	19	143	162
4th week	10	34	....	15	....	....	2	16	....	5	....	3	6	....	91	20	117	137
5th week	....	14	....	....	....	....	....	13	....	....	....	3	....	....	30	21	....	21
August:																		
1st week	5	....	....	....	....	....	....	....	....	....	....	3	6	....	14	22	94	116
2d week	3	....	....	....	....	....	....	....	....	....	....	1	5	....	9	22	89	111
3d week	....	....	....	....	....	....	....	....	....	....	....	3	3	....	6	22	123	145
4th week	....	....	....	....	....	....	....	....	....	....	....	4	3	....	7	22	132	154
5th week	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....
Total number in year	127	99	59	45	39	29	56	35	37	25	11	11	17	10	600	76	446	522
Maximum number at one time	62	65	35	34	29	27	27	23	19	17	11	8	11	7	375	37	178	215
Median number	38	56	28	28	25	23	15	20	15	13	10	4	8	4	.....	25	134	.....
Number of weeks in working year	49	47	45	37	41	44	46	45	45	47	44	48	50	39	.....	52	52	.....

[1] See notes on p. 89.

The seasons of the dressmaker who conducts a shop depend on four factors—the weather, the social life and habits of her clientele, the size of her working force, and her own ingenuity and administrative capacity—so that, while the different types of shops have each a characteristic working season, individual shops within that type may show variation either way. The private dressmaker has long seasons, first, because her clientele, consisting mostly of the middle class, does not demand the latest Parisian whims, so she need not go to Europe nor wait for the latest styles to begin her work; second, because their social life and demands are comparatively uniform throughout the year. More than one-half, 60 per cent, of the private dressmakers visited in Boston, Worcester, Lowell, and Cambridge, reported working seasons of 11 to 12 months, which seems to be characteristic of this type in other countries as seen from reports from Paris, London, and Glasgow.[1]

---

[1] Investigators report a similar situation in other countries. Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, pp. 412, 415, 419. Women's Work in Tailoring and Dressmaking, by Margaret Irwin, p. 34. Miss Irwin says: "On the whole the workers for private dressmakers appeared to have less slack time than those employed by shops, although two of the latter (employees) were very emphatic in their statements to the contrary. One girl said she had never lost a day in a shop, and she had weeks of 'idleset' with private dressmakers. Probably the shops keep a regular staff of workers to whom they give steady employment throughout the year, while there appears to be a floating body of workers who get employment in them during the busy season, and who are discharged when the pressure is over." Women's Work in Tailoring and Dressmaking, by Margaret Irwin, p. 36.

TABLE 24.—LENGTH OF WORKING YEAR, BY TYPES OF SHOPS.

[Based on reports of 138 employers.]

Length of working year.	Kind of shop.								Total number.
	Commercialized.		Specialized.		Transition.		Private.		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
12 months	2	28.5	....	....	3	8.6	9	19.1	14
11 and under 12 months	1	14.3	8	16.3	8	22.8	20	42.6	37
10 and under 11 months	1	11.3	28	57.2	15	42.9	14	29.8	58
9 and under 10 months	3	42.9	12	24.5	7	20.0	3	6.4	25
8 and under 9 months	....	....	1	2.0	2	5.7	1	2.1	4
Total	7	100.0	[1] 49	100.0	35	100.0	[2] 47	100.0	138

[1] One employer not reporting.

[2] Two employers not reporting.

The seasonal fluctuation and irregularity of work become more serious for both employer and worker in the next and more complex type of shop, in the stage of transition. The social life of the clientele is more centered in certain social events and more confined within certain limited seasons. Some go South for the winter, while many leave town for the summer. Consequently the work tends to concentrate in two fairly definite periods, spring and fall, leaving two equally definite periods, summer and winter,[1] in which little is done. The range of variation in the clientele is, however, still sufficiently wide to offer a fairly satisfactory solution of the seasonal problem to a good proportion of employers. The customers who go South in the winter provide work for January and February. Others send in their work before the spring rush. The increasing use of shirt waists and wash dresses, and the earlier exodus to the summer resorts, have opened up the spring season in February, so that some employers find the winter seasonal depression growing less marked than formerly.

While the private dressmakers showed a well-marked grouping in the 11 to 12 months' season, the shops of the transition stage distinctly group in the 10 and less than 11 months' season, 42.9 per cent being found here. Ninety-one and five-tenths per cent of the private dressmakers had a season of 10 or more months, but only 74.3 per cent of the shops of the transition stage came in this group; that is, only 8.5 per cent of the private dressmakers, as compared with 25.7 per cent of the shops in the stage of transition, worked less than 10 months, the characteristic season for the trade.

The working year varies with the city in which these shops are located, as shown by Table 25, since it is the social life of the people which determines the seasons.

---

[1] Women's Work in Tailoring and Dressmaking, by Margaret Irwin, p. 33. Also Cadbury, "Women's Work and Wages," p. 102: "Dressmaking is a season trade, but the fluctuations are much more felt in the fashionable districts."

TABLE 25.—NUMBER AND TYPE OF SHOPS IN 5 MASSACHUSETTS CITIES, BY LENGTH OF WORKING YEAR.

[Based on reports of 138 employers.]

Length of working year.	Boston.					Worcester.				Lowell, Cambridge, Somerville.		
	Commercialized.	Specialized.	Transition.	Private.	Total.	Specialized.	Transition.	Private.	Total.	Transition.	Private.	Total.
12 months	2	......	2	6	10	......	1	1	2	......	2	2
11 and under 12 months	1	3	3	10	17	5	3	5	13	2	5	7
10 and under 11 months	1	[1] 25	13	[2] 8	47	3	......	1	4	2	5	7
9 and under 10 months	3	12	5	2	22	......	......	......	......	2	1	3
8 and under 9 months	......	1	2	1	4	......	......	......	......	......	......	......
Total	7	[3] 41	25	27	100	8	4	7	19	6	[4] 13	19

[1] Two opened shops in summer resorts in July and August, thus realizing practically a 12 months' season.

[2] One opened a shop in a summer resort in July and August, thus realizing practically a 12 months' season.

[3] One shop unclassified.

[4] Two shops unclassified.

In Boston over half the shops of the transition stage have the 10 months' season, while in Worcester none have less than an 11 months' season, because the social life of the smaller city is less concentrated within short periods, the clientele is less dependent on Parisian decrees and delays, and the seasonal exodus is less marked than in a large city, these combined causes resulting in a longer and more regular working season for the dressmaker.

Seasonal fluctuation and irregularity of work reach their height in the large shop of specialized workers. The dependence on Parisian fashion and the migratory habits of the fashionable patrons cause the orders to be massed within two or three months of the spring and of the fall, thus necessitating a large force for a short time. A large force demands expensive head workers, whose salaries represent a large expenditure. Economical management, therefore, means putting the orders through at full speed and laying off the workers as fast as they can be dispensed with.

The characteristic year of the large custom shop is 10 months, 57 per cent of the 49 shops visited coming within this group. A smaller proportion than of the shops in the transition stage reported a working year of 10 months or more, and a slightly larger percentage worked less than 10 months, most of the latter being in Boston.

The commercialized shop, combining custom and ready-to-wear production for more than a local market, may equalize, to some extent, the marked seasonal fluctuations experienced in some of the fashionable custom shops, since the stock must be made up in advance of the custom season, to be on sale when the demand comes. The sales department also provides an outlet for the product, which may be made up in dull season and disposed of by midwinter and summer sales.[1] Of the seven commercialized shops visited in Boston, two reported a 12 months' season, one 11, one 10, and three 9 months, but the pay-roll records of two of these show that only a small proportion of the workers profit by the longer season.[2] The largest shop of this type in Boston, employing 400 to 500 workers, has a piecework system which places the employee under a double disadvantage. She must take vacations and also frequently has slack work and a corresponding fractional week's wage.

The solution of the seasonal problem in alteration departments has been approached from several sides. One exclusive furnishing store tries to hold the whole force by midsummer and midwinter sales and transfers from one department to another. "This shifting is a matter of careful and scientific management."

Some alteration establishments have two classes of employees—the regular or week workers and the seasonal or pieceworkers, the latter bearing the brunt of the seasonal fluctuations.

The wholesale dressmaking factory has a working season of 52 weeks, but the decline of demand in midwinter and spring causes a reduction of the force in November and December and in May, so that but a small proportion of workers profits by the longer shop year.

THE WORKERS' SEASON.

While the working season of the shop varies in the main from 10 to 12 months, the season of the individual worker shows a much wider range. The duration of employment within a given year depends partly on the worker's own skill and ability and partly on trade conditions over which she has no control. Taking the trade as a whole, the number employed each month varies as shown in the following table:

TABLE 26.—AVERAGE NUMBER OF MEN, WOMEN, AND CHILDREN EMPLOYED IN CUSTOM DRESSMAKING IN THE UNITED STATES IN 1900,[a] BY MONTHS.

Month.	Men.		Women.		Children.	
	Average number.	Per cent of median number.	Average number.	Per cent of median number.	Average number.	Per cent of median number.
January	3,803	85	35,359	79	371	91
February	4,021	88	33,958	76	366	90
March	5,187	114	42,741	96	421	104
April	5,688	125	50,571	114	441	109
May	5,220	114	51,940	117	436	107
June	3,720	81	46,288	104	404	100
July	2,451	54	31,316	70	309	76
August	2,416	53	20,973	47	226	56
September	4,065	89	34,736	78	358	88
October	5,283	116	46,583	104	410	101
November	5,563	122	48,976	110	423	104
December	5,071	111	46,579	104	407	100
Median number	4,568	100	44,515	100	406	100

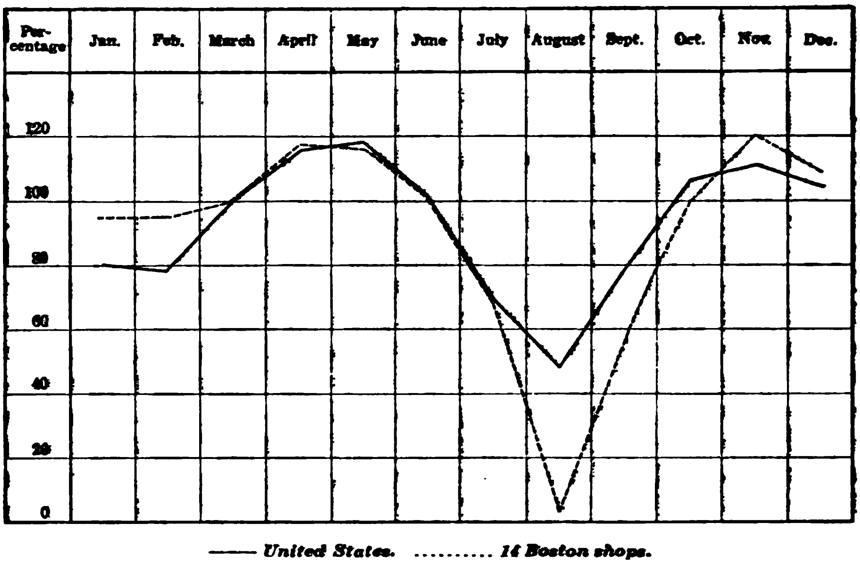
[a] United States Census, 1900. Manufactures, Vol. VIII, Pt. I, p. 54.

[1] The secretary of the investigation committee of the Seasons Trades' Conference held in London, Feb. 27, 1901, reported that "in some branches of industry (investigated in London, Liverpool, and Leicester, dressmaking being . . . preponderantly represented) it is possible to make up stock in slack seasons, but in many cases the employees are discharged." Women's Industrial News, Mar., 1901, p. 220. The bureau of labor reports houses in Paris which make "modeles pour l'exportation" as an accessory industry. Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 467.

[2] See Table 23, pp. 89, 90.

CHART A.—FLUCTUATION OF THE WORKING FORCE, BY MONTHS, IN CUSTOM DRESSMAKING IN THE UNITED STATES IN 1900[1] AND IN 14 SHOPS IN BOSTON IN 1910.[2]

[Based on Table 21.]



The curve for Boston does not drop as low in the dull winter months of January and February as that for the United States as a whole, but falls lower in August. Almost exactly the same variation appears between the curves for custom shops in London and for the United Kingdom as a whole.[3] These differences may be partially due to the fact that on the one hand the majority of Boston dressmakers attempt by various expedients to tide over the dull winter season because of the scarcity of good workers and the danger of laying them off, and, on the other hand, the established custom among the wealthy and middle classes of Boston of spending the summer out of town results in little or no demand in the summer months.[4] Moreover, this variation may be due not only to the difference in demand among the city and the country people as a whole, but also to the fact that the fluctuations of employment over a larger area neutralize each other and smooth the curves.

The two branches of the women's clothing trade have different working seasons. The factory dressmaking busy seasons precede those in custom dressmaking, since the ready-made gowns must be completed, shipped to their destination, and placed on sale in time to meet the demand for new winter and summer clothes.[1]

---

[1] United States Census, 1900. Manufactures, Vol. VIII, Pt. I, p. 54.

[2] From pay rolls of 14 Boston shops, September, 1910, to September, 1911.

[3] Clothing and Textile Trades. Summary tables by L. W. Papworth and D. N. Zimmern, published by Women's Industrial Council, London, 1912. (Summary tables based on census returns.)

[4] These Boston returns do not cover any private dressmakers, because none could be found who kept pay rolls, but they are for that reason more comparable to the census returns, which do not include dressmakers working in their homes or turning out an annual product of less than $500.

The following table shows the difference between the two branches in this respect:

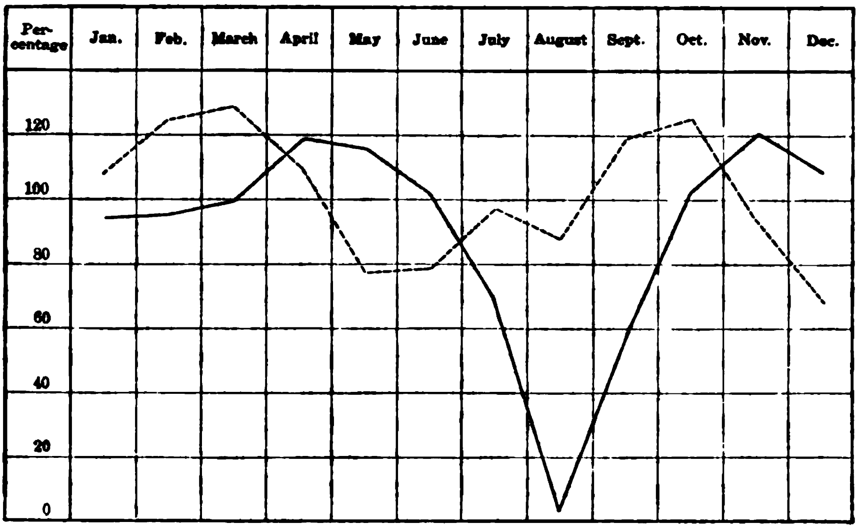
TABLE 22.—AVERAGE NUMBER OF WORKERS EMPLOYED IN 14 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS IN BOSTON, BY MONTHS.

[Based on pay rolls.]

Month.	Custom shops.		Manufacturing shops.	
	Average number.	Per cent of median number.	Average number.	Per cent of median number.
January	256	94	164	108
February	257	95	189	124
March	268	99	194	128
April	319	117	166	109
May	314	115	116	76
June	275	101	121	80
July	181	67	141	93
August	11	4	132	87
September	150	55	180	118
October	275	101	189	124
November	329	121	137	90
December	296	109	105	69
Median number	272	100	152	100

CHART B.—FLUCTUATION OF THE WORKING FORCE, BY MONTHS, IN 14 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS IN BOSTON.

[Based on Table 22.]



——— *Custom shops.* .... *Factories.*

The factory force is, therefore, being taken on in January when custom workers are being laid off and the busy season reaches its and one a 6 months' season for their median force. The working season for the median force in the large custom (A–D) shops employing more than 25 in the busiest season and for the wholesale manufacturing shops appears to be approximately one-half the working year of the shop in which they are employed. The smaller shops (E–N) employing less than 25 in the height of the season retain their median force from one-half to three-fourths of the working year. The significant fact is that 55 per cent of the 600 workers whose records were taken from pay rolls were employed in shops having a maximum of more than 25 workers.

---

[1] See Chart B.

In response to the questions "What are the seasons?" and "How many are employed?" employers so frequently replied "It is different every year," that the pay-roll records for two or three years were taken in several shops to see how true this was. The variations of five shops are shown in Table 28.

TABLE 28.—NUMBER OF WORKERS EMPLOYED IN FIVE CUSTOM SHOPS IN DIFFERENT YEARS, BY WEEKS.

[Based on pay rolls.]

Month and week.[1]	Number employed in shop—												
	B		D			F			J		N		
	1909-10	1910-11	1908-9	1909-10	1910-11	1908-9	1909-10	1910-11[2]	1905-6	1910-11	1903-4	1905-6	1910-11
September:													
1st week	......	......	......	......	......	......	......	......	2	2	......	......	......
2d week	......	3	......	......	......	......	......	6	7	10	......	......	......
3d week	6	27	......	9	......	13	12	13	11	11	......	......	......
4th week	25	46	......	22	......	28	30	20	12	10	......	......	......
October:													
1st week	49	50	23	25	......	33	38	22	12	10	......	4	4
2d week	51	54	25	26	......	37	42	22	13	11	......	11	5
3d week	55	57	28	28	......	41	42	23	13	14	......	11	5
4th week	55	58	29	29	......	40	42	23	13	14	7	8	6
5th week	51	56	29	28	......	41	44	22	12	14	......	......	6
November:													
1st week	57	56	29	32	......	41	44	22	13	15	7	10	7
2d week	57	57	29	31	34	43	44	23	13	16	7	10	6
3d week	58	60	29	32	31	42	45	24	13	17	7	10	6
4th week	63	61	29	32	31	42	45	24	13	17	7	9	6
December:													
1st week	60	61	29	34	31	42	44	24	13	16	7	8	6
2d week	58	65	30	34	28	42	43	24	12	15	7	8	5
3d week	58	62	29	32	31	43	43	24	11	15	7	8	5
4th week	63	62	29	33	29	43	43	24	4	14	7	8	4
5th week	......	58	......	......	18	......	......	23	......	......	......	5	5
January:													
1st week	53	62	28	27	25	43	41	23	9	14	7	5	4
2d week	57	55	28	28	27	43	42	22	10	13	7	5	4
3d week	41	54	27	31	26	43	43	22	10	13	7	5	4
4th week	42	54	25	31	26	42	41	24	10	13	7	5	4
5th week	46	......	26	30	......	44	40	......	9	12	7	......	......
February:													
1st week	44	52	26	32	8	44	40	24	9	11	7	5	3
2d week	41	51	27	31	26	44	42	24	9	11	7	5	4
3d week	31	42	30	32	27	46	42	23	7	11	7	5	3
4th week	29	28	30	32	27	47	43	25	12	13	7	7	3
March:													
1st week	3	6	31	33	31	49	43	25	14	13	7	7	3
2d week	12	6	32	......	27	47	43	25	13	14	7	8	3
3d week	41	38	33	34	29	47	44	26	14	14	7	8	3
4th week	49	52	33	32	30	49	43	27	15	13	7	8	3
5th week	......	......	......	......	......	......	......	......	......	......	......	8	......

[1] The variation in the number of weeks in the month in different shops is due to the fact that the pay day varies. Some shops close the books Thursdays and some Fridays.

[2] Now owned by former forewoman and conducted on somewhat smaller basis.

TABLE 28.—NUMBER OF WORKERS EMPLOYED IN FIVE CUSTOM SHOPS IN DIFFERENT YEARS, BY WEEKS—Concluded.

Month and week.[1]	Number employed in shop—												
	B		D			F			J		N		
	1909-10	1910-11	1908-9	1909-10	1910-11	1908-9	1909-10	1910-11[1]	1905-6	1910-11	1903-4	1905-6	1910-11
April:													
1st week	53	54	31	32	30	48	44	27	11	14	7	8	4
2d week	52	56	33	33	32	49	44	26	15	14	7	8	4
3d week	53	57	31	31	31	48	44	26	15	14	7	8	4
4th week	52	58	28	32	30	47	45	25	12	14	7	8	4
5th week	52	58	......	32	31	......	43	25	3	......	7	......	4
May:													
1st week	52	59	29	33	31	47	43	24	13	13	7	8	4
2d week	51	58	29	34	29	44	42	23	14	13	7	8	4
3d week	51	57	30	33	30	46	42	23	13	13	7	8	4
4th week	50	58	30	32	28	44	42	23	13	13	7	7	4
5th week	......	......	32	......	......	43	......	......	......	13	......	......	......
June:													4
1st week	51	57	31	30	27	41	35	23	12	13	7	7	4
2d week	48	57	31	29	26	13	31	23	12	13	7	7	4
3d week	48	56	32	29	25	15	9	23	12	13	7	6	4
4th week	46	52	30	27	23	......	......	22	12	13	6	5	
5th week	......	......	......	......	......	......	......	......	......	......	......	5	......
July:													
1st week	44	46	32	25	22	......	......	18	10	12	6	......	......
2d week	41	44	29	23	19	......	......	12	8	9	6	......	......
3d week	43	41	26	22	16	......	......	......	8	7	6	......	......
4th week	38	34	18	......	15	......	......	......	5	5	......	......	......
5th week	20	14	......	......	......	......	......	......	2	......	......	......	......
Median number	50	56	29	31	28	43	43	23	12	13	7	8	4

[1] See notes on p. 96.

Shop B varied but one week in the date of opening and closed in exactly the same week in two years. Shop F opened and closed in exactly the same weeks in two consecutive years, and J and N opened the same week in 1905 and 1910 and varied but one week in closing. D opened on different dates in three successive years but varied only a week in closing. While a customer may need a wedding trousseau or a mourning outfit early in September or late in January, or the employer may decide to stay abroad or to rest until October, or some such cause may lengthen or shorten a particular working year, the seasons for the shop as a whole do not vary greatly from year to year. This means that the regular force of workers may count on a fairly uniform working season. The records of 24 of the 35 permanent workers employed in shop D both in 1909 and 1910 did not show a decreasing season in spite of the popular statement that the seasons are growing shorter. Three workers in shop J, whose records in 1910 could be compared with those of five years before, had the same working year, varying only one or two weeks

The seasons for the median force of workers, however, varied more noticeably. In the large shops, B and D, the median force, although forming an increasing proportion of the total number employed, had shorter seasons in 1910 than in 1909. In the smaller shops, though, the median force seemed to be securing longer seasons.

TABLE 29.—WORKING SEASON FOR MEDIAN FORCE IN 5 SHOPS IN DIFFERENT YEARS.

[Based on pay rolls.]

Shop.	Season.	Number of weeks for median force in—			
		1905-6	1908-9	1909-10	1910-11
B	Fall	....	....	14	13
	Spring	....	....	13	11
D	Fall	....	10	8	7
	Spring	....	20	18	12
F	Fall	....	6	10	11
	Spring	....	18	11	21
J	Fall	12	....	....	15
	Spring	16	....	....	18
N	Fall	11	....	....	18
	Spring	11	....	....	13

Turning from the working season of the median force to that of individual workers, no more favorable conditions are found. The following table shows the actual duration in a given year of each worker's employment in shops:

TABLE 30.—LENGTH OF EMPLOYMENT OF 600 CUSTOM AND 522 FACTORY WORKERS IN SPECIFIED SHOPS, SEPTEMBER, 1910, TO SEPTEMBER, 1911.

[Based on pay rolls.]

Classified number of weeks worked.	Number employed in—																	
	Custom shops.															Manufacturing shops.		
	A	B	C	D	E	F	G	H[1]	I	J	K	L[2]	M	N	Total.	X	Y	Total.
50 weeks and over	2	....	....	....	....	....	....	....	....	....	....	....	....	....	2	4	22	26
45 and under 50 weeks	3	5	3	....	....	....	2	3	4	5	....	2	2	....	29	10	29	39
40 and under 45 weeks	7	25	11	....	13	16	6	9	3	2	5	....	3	....	100	1	14	15
35 and under 40 weeks	7	7	5	11	8	2	1	3	2	3	2	....	....	2	53	1	12	13
30 and under 35 weeks	5	3	3	7	....	3	1	3	....	1	2	3	3	1	35	4	28	32
25 and under 30 weeks	10	5	3	3	....	3	2	1	3	....	1	....	1	....	32	4	11	15
20 and under 25 weeks	3	3	2	....	3	1	1	1	1	1	1	....	....	....	17	3	18	21
15 and under 20 weeks	2	12	4	2	....	2	5	2	4	3	....	1	1	1	39	4	19	23
10 and under 15 weeks	19	11	5	2	2	....	6	3	1	3	....	1	....	2	56	5	36	41
5 and under 10 weeks	28	13	5	5	3	1	7	3	9	3	....	2	5	1	85	12	72	84
2 and under 5 weeks	25	8	5	5	5	....	12	5	7	2	....	2	....	1	77	16	102	118
1 week or under	16	7	13	10	4	1	12	2	3	2	....	....	....	2	72	12	83	95
Unclassified	....	....	....	....	1	....	1	....	....	....	....	....	2	....	4	....	....	....
Total	127	99	59	45	39	29	56	35	37	25	11	11	17	10	600	76	446	522

[1] Shop H covers the calendar year of 1911.

[2] Shop L covers the year from March, 1911, to March, 1912, because the firm had dissolved partnership and started on a new basis just previous to this period.

While 90 per cent of the people employed in shop K worked six months or more, only 26.7 per cent in shop A had such good fortune.

Taking the group as a whole, but 41.8 per cent of the 600 custom workers and only 26.8 per cent of the 522 factory workers studied on pay rolls for a year period worked six months or more in a single shop.

Only 21.8 per cent of the custom and 15.3 per cent of the factory workers were employed for as much as 40 weeks, the characteristic trade year, in one shop.

The figures taken from the United States census, it will be remembered, showed a six-months working season for the median force. How far this differs from the season of the individual worker is shown by the following table, which gives the percentage of the working force employed 25 weeks or more, 25 weeks being about half a working year:

TABLE 31.—STABILITY OF FORCE FOR ONE YEAR IN 14 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS IN BOSTON.

[Based on pay rolls.]

Shop.	Total number employed during year.	Working 25 weeks and over.		Working under 25 weeks.	
		Number.	Per cent.	Number.	Per cent.
Custom:					
A	127	34	26.8	93	73.2
B	99	45	45.5	54	54.5
C	59	25	42.4	34	57.6
D	45	21	46.7	24	53.3
E	39	21	53.9	18	46.1
F	29	24	82.8	5	17.2
G	56	12	21.4	44	78.6
H	35	19	54.3	16	45.7
I	37	12	32.4	25	67.6
J	25	11	44.0	14	56.0
K	11	10	90.9	1	9.0
L	11	5	45.5	6	54.5
M	17	9	52.9	8	47.1
N	10	3	30.0	7	70.0
Total	600	251	41.8	349	58.2
Manufacturing:					
X	76	24	31.6	52	68.4
Y	446	116	26.0	330	74.0
Total	522	140	26.8	382	73.2

In only 5 of the 14 shops was as much as half of the force employed for 25 weeks, while the two factories showed each less than one-third of their force so employed. Only a trifle over two-fifths of the workers in custom shops were employed as long as 25 weeks, while hardly over one-fourth of the factory workers were in this group.

The working year is divided, as has been seen, into two seasons, spring and fall. This has a double effect upon the workers. The seasons seldom coincide in any two shops, since the demands of the customers of each establishment determine the time when its work is most pressing and when, as a result, the greatest number is employed. This variation in the time at which they are required in the different shops enables many workers to shift from one shop to another, thus securing a longer season than they would have in only one. On the other hand, the division of the working year into two distinct seasons means for many of the workers a lay-off twice a year, with the attendant disadvantages of loss of wages, interruption to habits of regularity, encouragement to instability and restlessness, and the like. The following table shows the possibility of prolonging a short season by transferring from one shop to another:

TABLE 32.—DATES OF OPENING AND CLOSING OF FALL AND SPRING SEASONS FOR MEDIAN FORCE OF WORKERS EMPLOYED IN 14 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS IN BOSTON, SEPTEMBER, 1910, TO SEPTEMBER, 1911.

[Based on pay rolls.]

Shop.	Median number.	Fall season.[1]		Spring season.[1]		Weeks employed.		
		Began—	Closed—	Began—	Closed—	Fall season.	Spring season.	Total.
Custom:								
A	38	4th week of September.	3d week of December.	1st week of March.	1st week of June.	13	14	27
B	56	3d week of October.	1st week of January.	2d week of April.	3d week of June.	13	11	24
C	28	4th week of September.	3d week of December.	1st week of March.	3d week of May.	12	11	23
D	28	2d week of November.	4th week of December.	1st week of March.	4th week of May.	7	12	19
E	25	1st week of November.	1st week of January.	1st week of February.	2d week of June.	8	18	26
F	23	3d week of October.	1st week of January.	4th week of January.	3d week of June.	11	21	32
G	15	4th week of September.	2d week of January.	1st week of April.	4th week of June.	17	13	30
H	20	2d week of October.	2d week of November.	1st week of January.	1st week of July.	4	23	27
I	15	2d week of November.	4th week of November.	3d week of February.	2d week of July.	3	21	24
J	13	3d week of October.	4th week of January.	4th week of February.	4th week of June.	15	18	33
K	10	1st week of November.	5th week of December.	4th week of February.	1st week of June.	7	15	22
L	4	4th week of September.	4th week of January.	1st week of April.	2d week of July.	18	14	32
M	8	1st week of November.	1st week of January.	3d week of January.	5th week of June.	10	24	34
N	4	1st week of October.	4th week of January.	1st week of April.	4th week of June.	18	13	31
Manufacturing:								
X	25	3d week of September.	2d week of November.	4th week of February.	4th week of June.	9	18	27
Y	134	1st week of September.	1st week of November.	2d week of January.	4th week of April.	10	15	25

[1] The working force occasionally drops below the median number employed. (See Table 23.)

The fall season coincides in only three pairs of shops—A and C, B and F, and E and M—while only shops G and N have the same spring season. Occasionally workers in the shops having a fall season of only from 3 to 8 weeks have a chance of further employment in the shops having a season of 13, 15, or 18 weeks. In the spring the difference in length of seasons is not so marked as in the fall, but there is still the opportunity for dovetailing work in two or more shops.

This table also emphasizes the brevity of the working season for most of the employees, unless they can find some such method of lengthening it. In shops A, C, G, and L the median force was assembled by the fourth week of September, but not until October and November in the majority, while already in November and December the process of disorganization was beginning. In the 14 custom shops and 2 factories, 6 retained the median force less than 10 weeks in the fall and 12 provided less than 15 weeks' fall season. All through January, February, March, and April, the median force was being assembled for the spring season and through May, June, and July was being turned off. The spring season provided a longer working period, none of the 16 establishments having less than 10 weeks, while 9 had a spring season of 15 weeks or more. One-half the 14 custom shops had a fall season of 12 weeks or more and a spring season of 15 weeks or more for the median force. However, if the large shops A to G, which employ three-fourths of the workers, are separately considered, the fall season in but one instance, and the spring season in but two instances, exceeded 15 weeks for the median force, which again illustrates how short is the working period available to the mass of workers. The manufacturing shops provided very similar seasons for their median force, 9 and 10 weeks in the fall, and 15 and 18 weeks in the spring.

The fall and spring busy seasons alternate with the midwinter and midsummer dull seasons, causing dispersal or diminution of the force twice a year. The majority of custom shops close entirely during midsummer, but the midwinter season is usually a bridging over until the spring rush comes on. The fashionable clientele await the new spring models before giving orders, so the employer in shop B must go abroad in February and her shop is closed, except for the office force, for two weeks. The owner of shop D goes to New York for a week to see the new spring models. For similar reasons, the majority of even the most valuable workers in large shops like A and B have an enforced winter vacation of four weeks. Table 33 shows the extent to which the midwinter vacation prevailed in the shops studied. In four of the 14 custom shops and one of the two factories, more than one-half the force was laid off one week or more in midwinter. In shop A, although a commercialized shop, 66 per cent of the workers who were employed throughout the year were laid off in midwinter with a median vacation of four weeks. In the medium-sized shops like E, F, and G, the majority of the force were held and in the smaller shops like M and N the whole force remained intact.

TABLE 33.—RELATION OF MIDWINTER SLACK SEASON TO UNEMPLOYMENT IN 14 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS IN BOSTON.

[Based on pay rolls.]

Shop.	Total number employed during year.	Maximum number employed during year.	Workers employed one season or less.		Workers employed both seasons.					
							Not laid off in winter.		Laid off one week or more.	
			Number.	Per cent of total number employed.	Number.	Per cent of total number employed.	Number.	Per cent of number employed both seasons.	Number.	Per cent of number employed both seasons.
Custom:										
A	127	62	88	69.3	39	30.7	13	33.3	26	66.7
B	99	65	51	51.5	48	48.5	1	2.1	47	97.9
C	[1] 59	35	31	52.5	27	45.8	14	51.8	13	48.2
D	45	34	22	48.9	23	51.1	4	17.4	19	82.6
E	39	29	18	46.2	21	53.8	15	71.4	[2] 5	23.8
F	29	27	5	17.2	24	82.8	20	83.3	4	16.7
G	[1] 56	27	42	75.0	13	23.2	10	76.9	3	23.1
H	35	23	17	48.6	18	51.4	18	100.0	....	....
I	37	19	26	70.3	11	29.7	6	54.5	5	45.5
J	25	17	12	48.0	13	52.0	9	69.2	4	30.8
K	11	11	1	9.1	10	90.9	5	50.0	5	50.0
L	11	8	5	45.5	6	54.5	....	....	6	100.0
M	17	11	11	64.7	6	35.3	6	100.0	....	....
N	10	7	7	70.0	3	30.0	3	100.0	....	....
Manufacturing:										
X	76	37	42	55.3	34	44.7	14	41.2	20	58.8
Y	446	178	283	63.5	163	36.5	133	81.6	30	18.4

[1] One unclassified.

[2] Not including special finisher not called in.

This midwinter break is an important cause contributing to shifting and instability. The majority of the custom workers are laid off one or two weeks and the factory workers four weeks, during which time some find other employment and do not return. In all but 2 of the 14 custom shops more than 45 per cent of the workers appearing on the pay roll during a year worked in that shop one season or less, while in the two factories more than 50 per cent did not work more than one season.

The extent to which the individual worker is affected by the dull season is shown by the following table:

TABLE 34.—NUMBER OF WEEKS' "LAY OFF" IN MIDWINTER FOR WORKERS IN 10 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS IN BOSTON, SEPTEMBER, 1910, TO SEPTEMBER, 1911.

[Based on pay rolls.]

Shop.	Number of workers losing—							Median number of weeks lost by workers.
	1 week.	2 weeks.	3 weeks.	4 weeks.	5 weeks.	6 weeks.	More than 6 weeks.	
Custom:								
A	6	1	1	6	6	1	5	4
B	4	20	12	7	2	1	1	2
C	6	2	2	....	....	1	2	2
D	14	4	....	....	....	1	....	1
F	1	2	....	....	....	1	....	2
G	1	1	....	....	....	....	1	2
I	2	1	....	....	....	....	2	2
J	....	1	3	....	....	....	....	3
K	....	3	1	....	....	....	1	3
L	....	....	....	1	....	....	5	6
Manufacturing:								
X	....	2	2	6	....	....	10	4
Y	....	8	1	21	....	....	....	4
Total	34	45	22	41	8	5	27	35

Of the 182 workers considered, over two-fifths (44.5 per cent) lost four weeks or more and over one-eighth (14.8 per cent) lost more than six weeks. The midwinter dull season is therefore a problem demanding solution from both employer and worker, and various schemes have been devised by ingenious employers to avoid the economic waste of a scattered labor force. Two methods are most common in the medium-sized shops—first, offering inducements to customers to bring in work, and, second, alternating the workers on one or two weeks' vacations. The middle-class dressmakers have their own clothes made, alter gowns of the regular customers, and make up garments at reduced rates.[1] One of the most fashionable French dressmakers, with a force of 25 workers, made gowns at a lower rate in these two months and could scarcely fill the orders. Another large firm said, "We take in a good many gowns at $50 apiece to keep the force busy as much as possible." The profits are less, but the maintenance of a steady force and the opportunity to meet current expenses justify the effort. Wedding or mourning orders or a new outfit for a trip South are often available in January and February for the employer who keeps the shop open. A fashionable dressmaker, employing 55 workers, said: "The southern season is doing much toward filling in and tiding over January and February, formerly dull months." Many employers who have ingenuity and originality can give their customers what they wish without waiting for the latest decrees from Paris, and the delay and rush of the later season are thus avoided by the customer.

Some of the large firms have sought to solve the seasonal problem by widening their field and adding a tailoring department. "We have an increasingly shorter dull season in the winter because of our tailored suit department," said one large employer. "The tailored suits necessitate waists to go with them and provide work for the dressmaking department." The pay rolls of these shops show frequent instances where the mediocre worker, finisher, or helper is transferred from one department to another as the season progresses, thus lengthening her working season considerably. An interesting suggestion of future possibilities appears in the example of a few dressmakers who follow their customers to resorts and set up shop for the season. They take only a portion of their force, but all who have done so reported quite as busy a season as they desired.[2] The large fashionable commercialized shops are developing custom through salesmen who are sent to the fashionable summer and winter resorts, where they sell ready-to-wear clothing or take orders from customers. Such ventures may in time become much more common and have two good results—lengthening and equalizing the working season. Alternating the workers on one or two weeks' vacations in midwinter is also a common method of equalizing the midwinter season and falls heavily on none,[1] as the girls are often glad of an opportunity to furbish up their own wardrobes.

---

[1] Speaking of unemployment in London, Miss Black says: "In what would be slack seasons, i. e., in January and September, regular customers may have their own materials made up, and this device helps to keep work going, though little or no profits are made." Makers of our Clothes, by Meyer and Black, p. 88.

[2] See similarity of seasons in the dressmaking trade of Paris. France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 412 et seq.

Other shops, however, make no attempt to solve the problem, either from a belief that economy consists in putting the orders through at high speed and dropping the employees as rapidly as they can be dispensed with, or because of lack of administrative ability and ingenuity. The proprietor of a large shop which had a gloomy deserted appearance in midwinter said, "Some people get work in early, but we never do. People usually want to wait until the Paris styles come in before having new things made. Customers come to me sometimes before the arrival of the Parisian models and ask if we think such and such will be stylish. We usually say, 'Wait and see.' I have no faith in the present-day theories and attempts to establish American styles. The French always have, and I believe always will, set the styles." The reason why this dressmaker has short seasons is easily discovered. The "wait and see" policy quite precludes "getting work in early."[2] The majority of custom dressmakers seem to be able to cater to a sufficiently varied clientele to adjust the midwinter dull season fairly satisfactorily, but the less progressive and original employer sits with folded hands and a closed shop and complains that the seasons grow shorter and shorter. Likewise the ambitious and capable worker can secure fairly satisfactory working seasons, but the mediocre and incompetent, the very young and the very old, are tossed about with every rise and fall of demand.

The midsummer vacation is a still more important factor in the custom dressmaking trade, because it means a longer period of idleness for a larger number. The majority of shops are closed through July and August, though many workers have been laid off earlier. The force, thus scattered for several months, is not easily assembled in September and October, and many new names are discovered on the pay rolls in the fall. Table 35 shows the extent of this dispersion in seven of the shops studied. In the large shops A and D only about one-third of the workers and in shop G 49 per cent of those employed in the spring of 1911 were found in the same shops the following fall.

---

[1] See report of similar adjustments. Great Britain, Royal Commission on Labor. Conditions of Work in Scotland, by Margaret Irwin.

[2] Miss Black, after making her study of the trade in London, in 1908, says: "Few employers seem to have devised any effective way of grappling with the grave problem of seasonal irregularity" (p. 175), but reports one employer filling in slack time in February with theatrical costumes, which are "made a month or more earlier than the opening of the fashionable season and in the dead month of September. . . . the workers whom she keeps on during such periods are those whose need is greatest . . . sometimes she is able to send girls for a week or more to work in the country houses of her customers, and she makes a point of sending those whom she knows to be dependent on their own earnings." Makers of our Clothes, by Meyer and Black, p. 85.

TABLE 35.—NUMBER OF WORKERS EMPLOYED IN 7 CUSTOM SHOPS IN THE SPRING SEASON OF 1911 AND PROPORTION WHO RETURNED IN THE FALL AFTER THE SUMMER VACATION.

[Based on pay rolls.]

Shop.	Total number employed in the spring season, 1911.	Per cent returning in the fall season, 1911.	Per cent of those returning who earn $9 or less.
A........	69	32	68
D........	44	39	47
G........	33	49	68
H........	23	78	41
K........	11	72	75
L........	8	75	67
M........	4	75	67

In these three large shops,[1] typifying several stages of development, less than 50 per cent of the working force employed in the spring of 1911 returned after the summer vacation.

The working force of the smaller shops H, K, L, and M, employing a maximum of less than 25, are much less affected by the summer vacation because of the closer personal relation between employer and worker, the steadier and longer working season, and the maintenance of a fairly permanent force of regular workers. About three-fourths of the force employed in the spring returned for the fall season in these shops. Even the stable workers are not all highly skilled or well paid. In all but two of the seven shops the majority of former workers returning in the fall earned a weekly wage of $9 or less.

The pay-roll records of several shops for a period of two or more years throw some light on this instability of the labor force. In shop B, 50 per cent of a total force of 96 employed in 1910–11 returned for work the following year. In shop D, 40 per cent of the 55 workers on the pay roll during 1908–9 returned to work the following year, and 49 per cent of a total of 65 employed in 1909–10 returned to work the next year. Only 26.2 per cent of the workers employed in 1908–9 were still on the pay roll two years later. In shop F, 38 per cent of a force of 58 employed in 1908 returned the following year, but the total force of 1909 returned in 1910 without the defection of a single worker. Only 41 per cent of the total number, 76, employed in 1910–11 in the small wholesale manufacturing shop X were still at work the following fall, though the shop working year is 52 weeks. In shop J, three workers of the force employed in 1905 were still at work in the same shop in 1910 and in shop N one of the force of 1903 was still in the shop in 1910, seven years later.

---

[1] "Large shop" used in this report applies to shops employing a maximum of more than 25 workers.

INSTABILITY OF THE LABOR FORCE.

As different types of shops have characteristic working seasons, so may the three type groups of workers anticipate fairly definite periods of employment. As has already been pointed out,[1] the working force falls into three groups: the nucleus of regular workers, with a working season of 40 weeks or more; the finishers or helpers, laid off twice a year, with a working season of 25 to 39 weeks; and the rush hands or drifters, employed less than 25 weeks. A survey of 600 custom and 522 factory workers shows the surprising fact that 58 per cent of the custom and 73 per cent of the factory employees worked in a single shop less than 25 weeks. These short-time workers are for the most part the "casual laborers" of the trade. They are workers without a trade, though they may know how to handle a needle. Especially is this true of the large group, 39 per cent of the 600 custom workers and 57 per cent of the 522 factory workers, who were employed in one shop less than 10 weeks. One-fourth of the custom and two-fifths of the factory workers stayed less than five weeks and 12 per cent of the custom workers as compared with 18 per cent of the factory employees remained but one week or less.

TABLE 36.—EXTENT OF "CASUAL LABOR" IN CUSTOM AND FACTORY DRESSMAKING.

[Based on pay rolls.]

Length of employment in individual shops.	Custom shops.		Manufacturing shops.	
	Number.	Per cent.	Number.	Per cent.
Under 25 weeks...	349	58.2	382	73.2
Under 10 weeks...	236	39.3	297	56.9
Under 5 weeks....	151	25.2	213	41.0
1 week or under ...	74	12.3	95	18.2

This mass of floating unskilled workers is one of the gravest phases of the labor problem to-day, and while probably greater in the unskilled industries,[2] it is more serious in a skilled trade which must have trained and responsible workers.

---

[1] See p. 66.

[2] Bulletin of the United States Bureau of Education, No. 17. A Trade School for Girls—A Preliminary Investigation in a Typical Manufacturing City, Worcester, Mass. Washington, 1913, pp. 29, 30.

The following table shows the reasons assigned by 271 workers for leaving their positions:

TABLE 37.—REASONS GIVEN FOR LEAVING POSITIONS IN DRESSMAKING SHOPS.

[Based on personal interviews.]

Reason for leaving position.	Positions left.	
	Number.	Per cent.
Seasonal: End of season	63	23.2
Industrial	116	42.8
Low pay	42	
Better position	34	
Firm went out of business	25	
Unsatisfactory shop conditions	11	
"Didn't succeed"	3	
Strike[1]	1	
Personal	92	34.0
"Didn't like it"	51	
Illness	23	
Moved	10	
Married	5	
Needed at home	3	
Total	271	100.0

[1] Tailor shop.

It will be seen that fluctuation of demand, though important, is by no means the sole cause of unemployment. Less than one-fourth of the positions reported on had to be given up because of the end of the season. Forty-three per cent of the workers left because of other industrial causes and 34 for personal reasons.

Therefore, while dressmaking is a markedly seasonal trade, the seasons by no means explain the startling instability observed among the workers. Three-fourths of the reasons ascribed for leaving work were such as might be found in any industry.[1]

Four underlying causes, however, may be noted as especially applicable to the instability discovered in the dressmaking trade: (1) The seasonal fluctuations, (2) inadequate opportunity for acquiring skill and for advancement, (3) the increasing necessity for a high standard of workmanship and the inability of many workers to measure up to the demands, and (4) peculiar conditions in particular shops.

(1) The semiannual dispersal of the shop force throws a great mass of employees out of work twice a year, and, having found other positions, they frequently do not return to their former employer when needed.

(2) The poor opportunities for learning the trade are an important cause of the instability of workers. Few shops offer the young girl

---

[1] Miss Van Kleeck found that nearly 60 per cent of the 353 positions in bookbinding and the same proportion for 214 positions in the making of artificial flowers had been left for other than seasonal causes. Women in the Bookbinding Trade, p. 112, and Artificial Flower Makers, p. 49, by Mary Van Kleeck.

systematic training and she must "pick up" her trade as best she can. Unless very "bright," as the dressmaker expresses it, her employer, or the head girl under whom she works, refuses to allow her to remain at all, and unless very ambitious she seldom conquers the obstacles in the path to the skilled processes. If she does not develop beyond the stage of the plain sewer, her tenure is always insecure, because the least valuable worker is last taken on and first turned off. The art of dressmaking can not be quickly acquired and the majority of young workers, being impatient, believe they are not advanced by their employer as rapidly as they should be. The very common practice is to spend a short time in one shop acquiring the fundamentals and then to apply for a position at another shop as an experienced worker. While an employer may sometimes lose sight of the advancement of an employee who has grown up in the shop, and while a new employee has a certain opportunity for bargaining, the girl with such inadequate training and experience soon finds herself at a disadvantage in competition with the really experienced workers and becomes a drifter. She never becomes valuable enough to her employer to merit her interest or confidence, the drifting habit grows, and her incapacity dooms her to short seasons and irregular work. Thus 29 per cent of the 271 positions were left because of low pay, because the worker wanted a better position, or because she "didn't succeed." The employer, as a rule, sees little advantage and has little desire to cooperate in the movement for training workers in the shop because of the unreliable and uncertain tenure by which she holds her workers. "I started an errand girl two years ago at $3 a week," said one employer. "She is now getting $6 and was to get $7 at the beginning of the year, but she wants to leave now. Girls don't stick to it steadily. They are always wanting to go somewhere else, continually changing. Girls can't be depended on. I had one woman eight years; suddenly in the midst of the season she left with no reason."

The uncertainty of their tenure of work is, on the other hand, one of the grievances of subordinate workers and for this reason they feel no compunction in leaving whenever a better opportunity appears. "Saturday night when I received my pay I was told I need not come back on Monday," said one girl. "It is almost impossible to keep the books straight," said the bookkeeper of a large fashionable shop in dull season. "On Saturday evening I am notified to drop six or seven workers off the pay roll." Subordinate workers say they never know from one week to the next when they will be notified that their services are no longer needed. The advantage of mobility to the worker, therefore, depends largely on individual circumstances. In general, it may be said that the young girl who starts in the small shop should, after acquiring a good all-round experience, go to the large shop for the wider experience in methods of handling finer and more expensive materials, and the opportunity for advancement offered there. The young girl who starts in the large shop has the opportunity for a broad experience if she can conquer the obstacles and advance from one process to another. Unless she is especially bright or adapted to the work she will receive little help from her superiors. Most of the highly paid or skilled workers visited, however, had worked in very few shops, occasionally only one. They had worked up from the bottom and made themselves indispensable to their employers.

(3) Moreover, the increasing demands of the trade for superior workmanship have made it very difficult for the unskilled worker to hold a place. The increasing complexity of the artistic side of custom dressmaking is a universally recognized fact. Dressmakers and investigators, both at home and abroad, maintain that the trade has become an art, so a decreasing number are qualified to meet the requirements. But women when in need still, as in the past, turn to the trade as their natural domain. They are taken on and tried out, but only a small proportion can qualify for even the drifting type of helper. The worker who can turn her hand to anything can in reality turn her hand to only the most commonplace plain sewing. Alteration departments of stores carrying ready-made wear now attract large numbers of these mediocre workers. Factories and dressmaking shops which employ home workers supply some of these women with work, the embroidery on custom-made dresses being often done by workers in the homes. Philanthropic needlewomen's societies provide the most hopeless with work. Some of the local dressmakers believe that the artistic development of the trade combined with the lack of opportunity for workers to secure the requisite training primarily explains the unsatisfactory labor situation.

(4) Finally, the instability of the worker may be due to conditions in particular shops. Thirty-two per cent of the 271 positions were left for these reasons—"firm went out of business," unsatisfactory shop conditions, and "didn't like it." Some shops have short seasons, much overtime, and an absence of system which involves the shop in a continual flux. "X———'s is hopelessly confused and mixed up. There is constant doing over and overlapping of work. There is a great deal of overtime there." "I wouldn't advise my worst enemy to work at X———'s," said a head girl in the same shop, "and yet Miss X——— is delightful personally." Insufficient capital results in irregularity and uncertainty of pay. Many employers are going out of business. The forewoman in one shop has a "terrible temper." Workers are laid off in one shop, fill in a few weeks at another, have some personal grievance in another, hear they can get higher pay in another, and so drift from shop to shop. The large establishments

carry a certain prestige, offer wider social contact, assure regular pay, and in some cases, as in some commercialized shops and alteration departments, have longer seasons. These conditions all complicate the labor problem.

The stability of individual workers for a long period of time is not easily ascertained, for while reports from some are unquestionably accurate, others have drifted about so much they can not remember. A suggestive report on the number of shops worked in (excluding temporary positions of a few days) was secured from 200 workers personally visited. The following table shows the results obtained:

TABLE 38.—NUMBER OF SHOPS IN WHICH 200 WORKERS HAVE BEEN EMPLOYED, BY LENGTH OF EXPERIENCE.

[Based on personal interviews.]

Number of years in the trade.	Number of workers having been employed in specified number of shops.							
	1 shop.	2 shops.	3 shops.	4 shops.	5 shops.	6 shops or more.	Unclassified.	Total.
Under 1 year	8	7	2					17
1 year and under 2 years	6	11	9	4			1	31
2 and under 3 years	2	9	7	2	4			24
3 and under 4 years	6	3	8	2	1	3		23
4 and under 5 years	2	3		2	1	3		11
5 and under 6 years	3	4	3	1				11
6 and under 7 years		1	3	2	1			7
7 and under 8 years	1		1	1	3			6
8 and under 9 years		2	2	1		1		6
9 and under 10 years		1	3	1				5
10 and under 12 years			2	3	1		1	7
12 and under 15 years	2	3	4			2		11
15 and under 20 years		4	2	3	4	6	2	21
20 and under 25 years		2	3	1	1	4		11
25 years and over		2	2			2		6
Unclassified		1				1	1	3
Total	30	53	51	23	16	22	5	200

The instability of the young workers employed in the trade less than five years is at once apparent. More than one-half those employed less than one year had worked in more than one shop. More than one-half those at work two years had worked in more than two shops. The older workers of eight years' experience or more constituted one-third (33.5 per cent) of the 200 studied, and less than one-third (31.4 per cent) of these had worked in more than four shops. One-half of those with less than five years' experience, as well as of those with ten years' or more, had worked in two to three shops. The young workers find it difficult to meet the demands of the trade, and the employers, driven by competition and worry, have little patience with the girl who "must be shown how" or who "waits to be told what to do and how to do it." Consequently she is almost forced to become a drifter. Present day conditions in the trade also may make it advisable to work in different shops, some of which offer better opportunity for acquiring the principles of the trade, and others for securing advancement.

It was stated in the beginning of this chapter that irregular employment in the dressmaking trade is due both to seasonal fluctuations and to the instability of the force. The foregoing discussion has shown that seasonal fluctuation has a very serious effect upon the individual worker, making her period of employment both brief and of uncertain duration. The control of this element of irregularity lies mainly in the hands of the employer and the customer. Several methods have been mentioned by which the employer can modify the seasonal character of the trade, while careful forethought and consideration on the part of the customer would do much to prevent the massing of orders into two brief seasons. Something might be done also by an outside agency. Since the seasons of different types of shops do not coincide, much waste of time and loss of earnings might be prevented by an efficient labor bureau through which workers laid off from one shop could be directed at once to the shops of another type where they were needed.

But when investigation shows that more than one-third of the custom and one-half the factory workers are employed in a particular shop less than ten weeks and one-fourth the custom and two-fifths the factory workers less than five weeks, it is obvious that the seasonal demand is by no means the only reason for irregular employment. Two causes for this instability given by workers and employers—lack of opportunity to learn the trade and the inability of the workers to measure up to the demand—offer suggestions to the educator and social worker for a constructive program. The trade no longer provides opportunity for training its workers, yet it increasingly demands greater skill and ability. Both employer and worker are struggling with the problem, but they will doubtless have to be aided by an outside agency which can provide publicly supported industrial training.

under this protecting clause. What were the dressmakers themselves doing about it at the time of the investigation? Twenty-six per cent of 182 dressmakers posted their time schedules providing for a 58-hour week. The largest proportion (39 per cent) provided for a 56-hour week, and 31 per cent posted a 54-hour week schedule. The firms did not necessarily work every day the full number of hours posted, but could at any time work the full number posted on the schedule, for such overtime would seem to be perfectly legal.

The word "overtime" as used by the employees therefore might mean either time worked beyond the ordinary nine-hour day or time worked beyond the legal limit of 58 hours a week. Many girls did not know the difference.[1] They knew that "a woman goes around" and occasionally their employer was discovered working and fined, but they were unable to keep pace with legislation regarding hours of labor. Miss Collet reported that the workers of the trade in London, when informed that "the overtime complained of is permissible by the act if 'due notice is given,' . . . have in each case seemed to accept overtime as a necessary evil, and have never suggested that the act needed alteration. This submission to the law is most strikingly illustrated by a girl who, speaking very warmly in favor of her employers, said that it was quite true that they worked them overtime in the season, but they were compelled to do so by the factory act."[2]

Overtime may be the result of a variety of factors, but the exigencies of the patrons are the primary causes of illegal overtime in a custom trade. The large dressmaker has a stock of expensive materials, and it is to her interest to dispose of them. If a customer gives a belated order for a gown from some of these materials, the dressmaker can not afford to lose it. "I sometimes take an order that I know I can not finish without working overtime," said one dressmaker, "but I have the materials in stock and I must dispose of them. The inspector came the other evening, but fortunately I had closed up. If she had come almost any other evening this week, she would have caught us working."

Failure to organize the work systematically may also lead to overtime. Some well-regulated shops open and close like clockwork, and workers who have been employed for years have never known five minutes' overtime. Others are unanimously reported by the workers as regular offenders. There are not sufficient workers and the work is poorly systematized; consequently, the gowns are not completed at the specified time and the workers must finish them before they go home at night. "There is a great deal of overtime at A———'s," said one girl. "Everything is hopelessly confused and mixed up and there is constant doing over and overlapping of work. We never stopped at six, and no extra pay. I refused to work later than 8 o'clock there." But these conditions are not merely local. "Frequently," said M. Alfassa, of the trade in Paris, "nightwork was the result of bad management; the materials and the trimmings are not distributed in good time; the saleswomen are careless about turning in the orders. It is to their interest to sell and consequently to grant everything the clients ask without concerning themselves with the capacity of production in the workroom." [1]

---

[1] Miss Collet reported a similar situation in England. Great Britain, Royal Commission of Labor. Conditions of Work in London, by Clara E. Collet, p. 13. See also Le Travail de Nuit des Femmes, par Georges Alfassa, en Revue de Paris, Sept. 15, 1904, pp. 368, 369.

[2] Great Britain, Royal Commission of Labor. Conditions of Work in London, by Clara E. Collet, p. 13.

Overtime is more likely to occur in a custom trade, such as dressmaking, than in the manufacturing industries. A large factory, dependent on electric power, many lights, and a large force can scarcely escape the detection of the inspectors, and the results are scarcely worth the risk. Moreover union regulations make overtime impossible in many of the large factories. In a custom shop, the workroom of which is usually remote from the street, a few employees may easily work late at night with little danger of discovery. The trade because of its semiprivate nature has, moreover, not assumed sufficient importance in the eyes of the inspectors of Massachusetts to merit a great deal of attention. While about three-fourths of the estimated number of professional dressmakers in Boston appeared at least once, though seldom twice, on the records of the factory inspector during a period of one year, the inspectors of the other cities studied made no reports concerning dressmakers, and presumably no visits were made to the dressmakers of their respective cities. The majority are of a private character and employ few if any workers, hence do not seem to merit the time and attention of the overworked inspectors.[2] Nor is this neglect or perhaps oversight of the custom workers local. M. Alfassa reported one dressmaking shop in Paris which had not been visited once in eight years.[3] The isolation of the workers, their distribution among many shops, and the character and conditions of their work combine to make their protection more difficult than that of the factory worker.

In spite of their dislike of overtime, the employees are usually wont to protect their own interests by shielding their employer rather than by assisting inspectors in the enforcement of the law. "Last year," said the mother of a young girl of 17, "Anna used to work three or four evenings a week until 7 or 8 o'clock (5.30 was the regular closing time). Sometimes the employer shortened the lunch hour, if in a hurry. When the inspector came, the girls said they never worked overtime."

---

[1] Le Travail de Nuit des Femmes, par Georges Alfassa, en Revue de Paris, Sept. 15, 1904, p. 384.

[2] The law provides for "the inspection and licensing of buildings or parts of buildings used for industrial purposes, the inspection and licensing of the workers therein and of all other industrial employees within the Commonwealth." But in prescribing the duties of inspectors with relation to "lighting, ventilation, and cleanliness," and "toilet facilities," only "a factory in which five or more persons and a workshop in which five or more women or young persons are employed" are specified. Laws Relating to Labor, 1912, compiled by the Massachusetts State Board of Labor and Industries, pp. 5, 14, and 22.

[3] It is interesting to see that M. Alfassa found all the causes and conditions resulting in overtime in Paris which were found in Boston. Le Travail de Nuit des Femmes, par Georges Alfassa, en Revue de Paris, Sept. 15, 1904, pp. 367–389.

Investigators and inspectors in London and Paris report a similar difficulty. "When found working by a factory inspector," said Miss Collet, in London, "they falsely declared that it was the first night they had worked overtime that week."[1] The Parisian inspectors complain at length of the many ruses by which they are deluded and circumvented.[2] This difficulty is largely the result of the workers' lack of organization, each girl fearing to take a stand which will involve her in difficulties with her employer.

Overtime in dressmaking is, however, much disliked by the workers for two reasons. It can seldom be foreseen, so the workers can not make their plans accordingly, and many firms do not pay for the additional time and work.[3] "I never could make engagements," said one much discouraged girl; "I never had Saturday nights. Miss M. used to say 'you know I can work you till 20 minutes of 7,' but we often had to work until 9. We were told if we did not stay, we need not come back next day." "About six weeks in the fall season," said another, "the girls have to work overtime. There is no definite arrangement. It is just according to rush orders or the amount of work which has to be got out in a specified time. I have had to work many times until 8 o'clock, and once until half past 10. I am sure I worked full 58 hours and I believe more, though I never kept count." "We worked six and sometimes more hours overtime a week almost regularly in Miss C———'s shop," said another. "We work two hours overtime regularly through the busy season," said another. "We worked until 7 o'clock every night for three weeks." Another girl must work evenings and Sundays if necessary. "If you could only abolish overtime," said a Boston girl, "dressmaking would be all right; but to work from 8 in the morning until 9 or 11 at night, and no extra pay, I would not do it any longer."

The law of Massachusetts prohibits nightwork, from 10 p. m. to 6 a. m.,[4] for women in manufacturing establishments. A girl of 21 worked until half past 10 in the heart of the city and had to go to her home after that hour. A girl of 17 "had worked until 11 o'clock when dresses just had to go out that night." "We worked many nights until 11 o'clock through most of the busy season," said another.

---

[1] Great Britain, Royal Commission of Labor. Conditions of Work in London, by Clara E. Collet, p. 13.

[2] Le Travail de Nuit des Femmes, par Georges Alfassa, en Revue de Paris, Sept. 15, 1904, p. 382.

[3] "At seven or half past seven," said Albert de Mun, when testifying before the Chamber of Deputies in France, "at the moment when the workers are about to leave, they are informed that there will be a 'veillee,' they had not been informed beforehand; very often they already have their hats on their heads." L'Industrie de la Couture et de la Confection à Paris, par Léon de Seilhac, p. 44.

[4] Laws of Massachusetts, R. L. vol. 106, sec. 27 (district police). Bulletin of United States Bureau of Labor Statistics No. 148, p. 972.

In spite of the many reports of overtime by the workers, the exact truth as to the actual amount is most difficult to secure from this source. Where the workers are paid at a specific rate for overtime, however, this can be accurately determined from the pay roll. Of the rest, nothing definite can be known.

On the pay roll of one of the large fashionable shops, 39 of the 43 weeks of the season 1909–10, and again in 1910–11, showed overtime. In 1909, there was a total of 1,277.6 hours overtime, which equals 141.9 days of 9 hours each, or 23.6 weeks of 54 hours each for a working force with a maximum of 65 workers. During the year 1910, $409.73 was paid for a total of 1,671.3 hours overtime, making 185.7 days of 9 hours or 31 weeks of 54 hours. In other words, there was enough extra work to have occupied one person 23.6 weeks in 1909, and 31 weeks in 1910. Now this sounds as if the remedy were simple enough. Employ another person. But it is not so simple. All this extra work represented by the overtime was not the work of one person, nor could it be, since no one person in the trade produces all parts of a garment. One night a tailor and his assistants must finish a coat. Another night, perhaps, a dozen women must stay to finish up a dainty trousseau of delicate chiffon and laces. Because of the extreme subdivision of labor, a particular worker must, sometimes, stay and work overtime night after night because her particular services are needed. Again, the dependence of one worker on another may cause overtime. For instance, the power-machine operator may be delayed because the handworkers have not basted the materials together before the closing hour; the waist girl may be delayed because the sleeve girls have not completed their section; the trimmer or the tailor must put on the last finishing touches before the garment goes out of the shop. For this reason the instances of overtime may greatly exceed the number of persons working. Thus, in the second week of November, 1909, 37 persons in one shop worked overtime during the week, but some worked several nights, making 107 instances of overtime. The following table shows the number of hours overtime worked by each of these employees during the week.

TABLE 39.—AMOUNT OF OVERTIME IN A SHOP IN THE WEEK OF MAXIMUM OVERTIME ENDING NOVEMBER 6, 1909.

[Based on pay roll.]

Case No.	Hours of overtime worked by employees on—							Total hours overtime worked.	Amount paid for overtime.
	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Sunday.		
1					¾			¾	$0.12
2[1]	1	2½	1	2½	1	1		9	2.50
3				1	1½	1½		4	1.11
4								[2]9	2.33
5				½	3			3½	.46
6			1	1				2	.33
7				1		½		1½	.28
8				1¼	½	½		2¼	.37
9		2½		2½				5	.75
10[1]	1			2½		1		4½	1.25
11[1]	3½	1	1	1	1	1		8½	3.46
12		1		1				2	.24
13[1]	1	4	1	4½	1	1	9	21½	8.33
14				1	½	1½		3	.50
15		1		1½				2½	.56
16								[2]9	
17		1½						1½	.28
18				½				½	.05
19	1½		2	1				4½	1.17
20		1				1		2	.37
21	½	½		3¼	3½			7¾	1.58
22				1				1	.13
23	1	2½		2½	3			9	1.67
24		1½	1½	1	1			5	1.30
25		1½		1		2		4½	1.00
26			½	4				4½	1.25
27		1¼		1½	3			5¾	.90
28	¾	¼	¼	3	2½			6¾	1.50
29	¾	1½	1	1	3	½		7¾	1.73
30		1¼	1¼	1	1			4½	.83
31		1¼	½	1¼	2			5	.56
32		1½	¾					2¼	.17
33		1½			1½			3	.50
34				1¼	3	½		4¾	.96
35			1¼	1½				2¾	.52
36[1]	2½	1	1	1	1	2		8½	2.30
37[1]				2¾				2¾	.36
Total amount	13½	30½	14	50	33¾	13¼	9	182½	43.81
Number of instances of overtime	10	20	14	30	19	13	1	107	

[1] Men; hence not limited by legislation.

[2] Not specified by days.

No. 13, a man tailor, worked every night and Sunday, besides; four people worked every night; 19 workers stayed three or more nights for extra work. The men were not subject to the law limiting the week to 58 hours, but cases of illegal overtime appear for the women. Since the regular working week in the shop is 54 hours, any woman working more than four hours overtime exceeds the legal limit, which is the case of 15 women as shown in Table 39. In no case did the women work later than 10 o'clock (closing hour of the shop was 6 o'clock), though one young woman, No. 26, must have worked until 10, after which she had to reach her home in a remote suburb. The number working overtime during that week ranged from 10 on Monday to 30 on Thursday, only two of whom worked less than one hour. Any woman working more than one hour overtime in a day again exceeds the legal limit, which is a 10-hour day. On Thursday of this week 11 women exceeded the 10-hour day; during the whole week there were 40 instances of women exceeding the 10-hour working day. November was the month of maximum overtime both in 1909 and 1910, and the second week showed the greatest rush in both years. In the second week of November, 1909, 37 people, representing 107 instances, worked 182¼ hours, enough for three people working a 58-hour week and one person working one day. In the same week of 1910, 44 people, representing 168 instances of overtime, worked 186¼ hours, again enough for three people working a 58-hour week and one person working a day and a half. December also is a rush month with a good deal of overtime, though it rapidly decreases during the month.

The following table shows the variation of overtime by months in a large shop:

TABLE 40.—OVERTIME IN A LARGE SHOP FOR TWO CONSECUTIVE YEARS, 1909-10 AND 1910-11.

[Based on pay rolls.]

Month and week.	Overtime in 1909-10.					Overtime in 1910-11.				
	Number of persons.		Number of instances.	Number of hours.	Amount paid.	Number of persons.		Number of instances.	Number of hours.	Amount paid.
	Employed.	Working overtime.				Employed.	Working overtime.			
October:										
1st week	49	2	2	13½	$3.00	50	4	5	3½	$4.32
2d week	51	3	3	2	.65	54	10	13	10¾	2.13
3d week	55	8	12	13¼	2.82	57	12	16	22¾	5.23
4th week	55	8	8	14¾	3.26	58	17	19	13¼	2.66
5th week	51	25	56	85¾	23.47	56	21	50	58	17.56
November:										
1st week	57	40	107	122¼	26.83	56	37	94	111¼	26.70
2d week	57	37	107	182¼	45.64	57	44	168	186¼	43.53
3d week	58	36	98	141½	37.96	60	40	112	155½	37.27
4th week	63	19	37	58¾	12.21	61	41	111	127¾	29.69
December:										
1st week	60	27	54	89¼	22.95	61	43	122	146½	37.68
2d week	58	19	40	49½	15.39	65	30	81	104	28.95
3d week	58	21	36	33½	24.59	62	38	98	118¾	30.22
4th week	63	12	17	28¾	8.49	62	25	42	42¼	9.12
5th week	......	......	......	......	......	58	10	12	13¾	3.18
January:										
1st week	53	7	8	7½	1.31	62	11	18	17	2.85
2d week	57	......	......	......	......	55	10	12	9¼	1.57
3d week	41	......	......	......	......	54	16	27	23	5.30
4th week	42	5	7	4¼	1.59	54	14	19	15	3.09
5th week	46	17	28	40	11.43	......	......	......	......	......
February:										
1st week	44	13	20	15¾	3.40	52	6	7	6¾	1.04
2d week	41	3	4	2	.39	51	......	......	......	......
3d week	31	7	8	8¼	2.02	42	1	1	½	.10
4th week	29	......	......	......	......	23	1	1	½	.09
March:										
1st week	3	......	......	......	......	6	......	......	......	......
2d week	12	1	1	4½	.93	6	......	......	......	......
3d week	41	19	32	45½	14.23	38	1	1	......	1.00
4th week	49	2	2	1½	.28	52	7	5	3	2.97
April:										
1st week	53	7	7	13½	4.74	54	20	29	19¾	5.17
2d week	52	17	34	47½	14.16	56	18	43	26	7.80
3d week	53	18	39	40	11.64	57	21	33	22	5.69
4th week	52	13	26	23½	6.94	58	21	37	43½	13.52
5th week	52	20	38	32	9.36	58	24	62	54½	12.78
May:										
1st week	52	4	5	6½	1.47	59	32	60	55½	11.63
2d week	51	7	8	7¾	1.34	58	27	50	46¾	9.38
3d week	51	15	20	21¼	4.08	57	18	42	29¼	6.52
4th week	50	17	23	18	4.96	58	20	46	30¼	6.70

TABLE 40.—OVERTIME IN A LARGE SHOP FOR TWO CONSECUTIVE YEARS, 1909-10 AND 1910-11—Concluded.

Month and week.	Overtime in 1909-10.					Overtime in 1910-11.				
	Number of persons.		Number of instances.	Number of hours.	Amount paid.	Number of persons.		Number of instances.	Number of hours.	Amount paid.
	Employed.	Working overtime.				Employed.	Working overtime.			
June:										
1st week	51	20	43	51¾	$10.23	57	12	16	14¼	$3.10
2d week	48	12	18	16	3.18	57	17	39	30½	6.18
3d week	48	10	12	6½	1.35	56	18	31	18	4.48
4th week	46	9	12	8½	1.85	52	9	21	14	4.06
July:										
1st week	44	3	4	2	.46	46	16	30	28¼	6.04
2d week	41	4	4	3	.80	44	....	....	....	....
3d week	43	5	7	4¾	.88	41	9	21	25	4.88
4th week	38	10	13	10¾	2.08	34	13	19	24¾	5.45
Total	....	....	1,000	1,277 1/12	342.36	....	....	1,631	1,671¼	409.73

The relation between overtime and the seasons is apparent.[1] The maximum overtime comes in November and May, the heights of the two seasons in this particular shop in 1910. The minimum overtime in January, February, and first part of March corresponds with the depths of the trade depression. The fall season in this shop is, however, characterized by a great deal more overtime than the spring. This seems to be explained by the character of the clientele. The patrons of the shop are wealthy and fashionable people, who do not return to the city until October. The orders precipitate a deluge of work demanding immediate execution, for everyone has "nothing to wear." Through November, therefore, the work can be completed only by overtime for a large part of the force. The spring orders, however, come in much more gradually and are distributed over a greater length of time, so while there is still a great deal of overtime, the management is better able to control it.

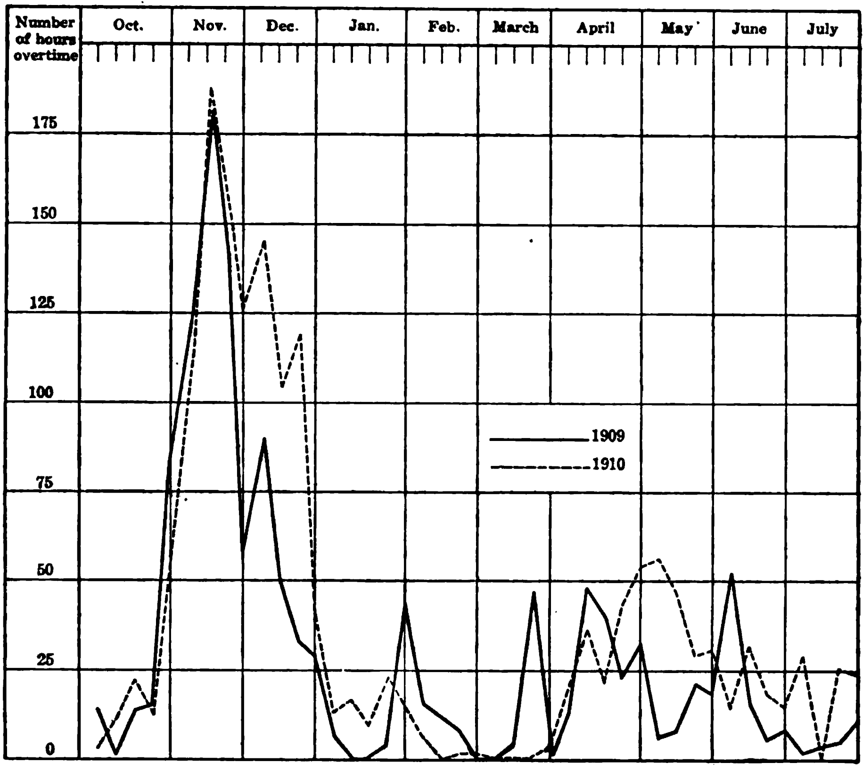
The labor problem which the employer faces also becomes apparent. The cataclysmic rush of work in the fall necessitates one of two things, overtime or more workers. But scarcity of skilled labor is one of the most serious difficulties of the trade. Moreover, it is not one or two workers who are needed, but different workers in the various departments for a short time. Skilled workers can seldom be picked up for a short rush season, as they have comparatively steady work, and few employers can stand the expense of holding through the year a large number of skilled workers who are needed but a few months. The alternative appears to be overtime as long as the orders of the customers come within a short rush period.

---

[1] See Chart C.

CHART C.—OVERTIME IN A LARGE SHOP DURING THE YEARS 1909–10 AND 1910–11.

[Based on Table 40.]



Few pay rolls, however, give such complete record of overtime as was found in this shop, and therefore to what extent such overtime is characteristic of the large fashionable shops in general it is impossible to say. The pay roll of another shop, equally large and catering to the same type of people, showed very little pay for overtime and that only occasionally. The natural presumption would be that there was little overtime there. Reports from the workers, however, show this is not true. The majority said overtime was compensated by equal time off, though one said she had the choice of pay or time off. The overtime, under this system of compensation, does not appear on the pay roll, nor can it be accurately ascertained from any source.

Another high-class shop, though employing about half as large a force (35), showed much less overtime. Some appeared on the pay roll during 15 of the 39 weeks working season. The second week in November, eight workers received 50 cents extra and five workers $1 each for overtime, but the number of hours worked was not specified. Again, the first week in December an equal number received varying amounts, none exceeding 50 cents. The last week in April and first week in June four people received overtime pay, but during the remainder of the season only one or two, and in one instance three, workers were paid for overtime. The relation of overtime to the heights of the seasons is here again apparent. But this is not an accurate account of the overtime in this shop, as one worker reported overtime with no compensation, an instance again of overtime that does not appear on the pay roll.

More than one-half the 200 workers visited reported overtime during the year which may or may not have been illegal; one-third (34) of those reporting received no pay for additional time and work. Overtime was reported for 59 shops, though in only 6 of these was it habitual or frequent. More than one-third (39 per cent) of the 59 shops did not pay for overtime. One worker said she received "nothing for once or twice." One was paid "about one-half the time." Another said her employer "always promised to pay them for overtime, but she never did." Four shops, according to the reports of the workers, made it up to them by allowing time later, and one shop gave the choice between pay and time off.[1] "I sometimes work until 7 o'clock several times a week during rush season," said one girl. "Once I worked until 9 o'clock. But they make it up to the girls by giving them an afternoon off. They are perfectly fair about it. We are never asked to exceed the legal weekly limit and are glad to work overtime some evenings to get the afternoon off."[2]

The large establishments, on the whole, may be said to pay for or at least compensate overtime. A fashionable shop of 100 workers, however, notorious for its continuous and extended overtime, did not pay for it, while some of the small shops did, so it is difficult to generalize. The payment for overtime ultimately depends on the businesslike methods of the employer and on the employees themselves. Some employees refuse to stay night after night without pay. Others are afraid to refuse.[3]

Overtime without pay would seem to be a profitable system. To what extent this opportunity is abused by the employer it would be difficult to say. "The girls worked at Miss B———'s shop during the three months of the spring season every night until 12 o'clock," said one worker. "Miss B——— would declare the gown had to be done within a certain time and then a week after we would see it hanging in the closet.[1] She announced once that 'No girl need expect to stay who wouldn't work overtime.' She usually wouldn't ask a girl outright to stay at night, but would say certain dresses had to be done, and if we didn't stay we knew we would lose our places."

---

[1] Miss Collet discovered a similar diversity with regard to payment for overtime in London. Great Britain, Royal Commission of Labor. Conditions of Work in London (1893), by Clara E. Collet, p. 13.

[2] Miss Irwin reported a similar custom among some dressmakers in Scotland. Great Britain, Royal Commission of Labor. Conditions of Work in Scotland, by Margaret Irwin, p. 292.

[3] Miss Collet, in London, and Miss Orme and Miss Abraham, in Ireland, found a similar situation. Great Britain, Royal Commission. Conditions of Work in London, p. 13; Conditions of Work in Ireland, p. 322.

M. du Maroussem reported one employer in Paris who paid double for overtime. Nothing is said about the others, who probably do not pay for overtime. France, Office du Travail. La Petite Industrie, Vol. II, Le Vêtement à Paris, p. 439.

"Mme. Z——— came in one evening," said another girl, "and announced that all should work until 6 o'clock (half past 5 being the regular closing time), although there was no particular need for it. The more I thought of it the more angry I got. Off of 18 women thus she would get in just a whole day's work for no pay. When half-past 5 came I left and went home. Mme. Z——— said nothing to me the next morning." An older woman of 45, however, who only managed to get four months' work in the whole year, could be much less independent. "We often stayed at S———'s three or four nights a week until 7 or 8. I did not care to be 'stiff' about those things for fear of being discharged."[2]

A few of the Boston workers said that supper was provided when they worked late. "Many nights through most of the busy season we worked until 11 o'clock. Miss H——— gave us a sandwich for lunch, but what was that?" said one girl. "Sometimes we work overtime at C———'s," said a more contented worker, "but we are paid the regular rate and a nice supper is always brought in—sandwiches, hot coffee, cake, and fruit. C———'s is a grand place to work."

The rate of pay for overtime varied with the different shops. The majority who were paid received the regular rate or approximately that amount.[3] A large alteration department had a regular overtime rate of 25 cents an hour. The $12 worker thus received about her regular rate for overtime work, while the $9 worker received almost half again her regular rate.

An ingenious scheme of adjustment of seasonal fluctuation and hours was discovered in a private shop, but with the burden still on the worker. The regular working day was from 8 a. m. to 5.30 p. m., with one-half hour for lunch. The employees worked one-half hour over the regular day two or three times a week throughout the busy season. No pay was given for the extra time and work. In dull midwinter from Thanksgiving until the opening of the spring season the hours were changed from 8 a. m. to 4 p. m. with one-half hour for lunch, and workers received but five days' pay. In the busy season they worked more than they were paid for. In the dull season five days' work was spread over six days and they were paid for just five days' work. To what extent the work done during overtime in the busy season would have occupied the dull season is difficult to determine. The demands of customers are the ultimate controlling force.

---

[1] See similar report by M. Alfassa. Le Travail de Nuit des Femmes, par Georges Alfassa, en Revue de Paris, Sept. 15, 1904, pp. 384, 385.

[2] Great Britain, Royal Commission. Conditions of Work in London, by Clara E. Collet, p. 13.

[3] A girl receiving $7.50 a week, for instance, received 11 cents an hour (13 cents would have been regular pay).

Conditions at the time of the investigation made overtime profitable to the employer. She could get a great deal of additional work at no additional cost and without violating the 58-hour law. "I have noticed," said a girl of 22, "that the dressmakers who rushed the girls and kept them overtime had patrons coming back oftener for alterations." The quality of work done and temper of the workroom force might thus counterbalance the amount of work completed. "Moreover, the work done during the day is good," says M. Alfassa, "while that done in the evening is extremely defective."

In isolated cases of an eight-hour day the employer has maintained that the same results can be secured in an eight as in a nine hour working day. "Miss Olivia Flynt, Chauncy Street, Boston (reported) Hours of Labor per day (8)" in 1871. "We are assured by the employer and employed that their profits have been quite as large since the adoption of the eight hours for a day's work some eighteen months since, as before, when working nine and one-half hours per day."[1] Two proprietors of shops in Boston now have an eight-hour day, one of whom says she can turn out as much work in eight hours as in nine hours throughout the season.

Legal prohibition of nightwork and regulation of shop hours is undoubtedly beneficial in controlling overtime, though a rigid enforcement of the legal limit of hours will probably result in only partially checking the tendency of customers to give late orders and to require their completion within an unreasonable time. It may result to a certain extent in driving the work out of the shop to the home. Some half dozen workers representing three or four shops reported taking work home in the evening, for which the majority received no additional pay. "I have taken a coat home from H——— and embroidered on it at night with no extra pay," said one girl. Another took material home Saturday and worked on it a large part of Sunday. An employee in one of the large shops, however, said, "In extreme rush we take embroidery home at night. We get extra pay and I am glad to be able to earn the extra money." The employer thus escapes the danger of being discovered by the inspector, but violates the law which forbids work being sent to the home without a license.[2] The wearer is exposed to the possibilities of clothing made under unsanitary conditions and the worker has seriously over-drawn on her reserve force. Both workers and inspectors reported a similar situation in England.[1]

---

[1] Second Annual Report of Massachusetts Bureau of Labor (1871), p. 216.

[2] Laws of Massachusetts, R. L., vol. 106, sec. 56 (State Board of Health). Bulletin of the United States Bureau of Labor Statistics No. 148, pp. 982 and 983.

The evil effects of long hours and overtime for women have been so clearly and voluminously portrayed in the United States and Europe that it seems unnecessary to deal with them except in a cursory way.[2] The physical and nervous strain of overtime added to the regular working day is self-evident. The work begins at the regular hour the following day regardless of the hour at which the worker left the shop the preceding night.

The moral aspect of the problem has been emphasized by French writers. The young girls and women are exposed to many unpleasant experiences returning to their homes late at night.[3] Young girls become accustomed to being out at night, and their parents have no way of knowing when it is necessary. "Does Anna have to stay at night very often?" the investigator asked a mother. "I can't tell," said the mother. "Sometimes she comes home late and says she was kept in at the shop. But you can't always believe what young girls say."

A more equal distribution of work throughout the year, or work for a larger number of women must result if the legal regulation of the working day be enforced. English trade-union workers and inspectors believe that such a result has been secured in England.[1] Legislation and adequate inspection can contribute to the betterment of working conditions. The 54-hour week without exceptions should greatly simplify the situation in the dressmaking trade, as under it the legal and the actual working day of the majority of shops are synonymous. Enforcement of this legislation is the problem of the times, but it can be greatly facilitated by the customers and by employees.

The movement for abolishing nightwork for women received a powerful impetus in the signature by 14 European States of the international convention respecting the prohibition of nightwork for women in industrial employment. The convention guarantees to women in industrial occupations in the signatory States a night rest of 11 consecutive hours, part of which must cover the period from 10 p. m. to 5 a. m. This convention came into force January 14, 1912, in the 12 States which had ratified it by January 14, 1910. These countries are Germany, Austria, Hungary, Belgium, France, the United Kingdom, Italy, Luxemburg, Netherlands, Portugal, Switzerland, and Sweden.[1] The United States as a unit has no such legislation. This important matter is left to the individual States and the resultant variation is always a weapon of the employers against reduction of the working hours in a particular State on the ground that it unfairly handicaps them in the competition of trade. In 1916 but nine of the States prohibited nightwork by women.[2]

---

[1] Great Britain Factory and Workshops Acts Commission. Report of the Commissioners appointed to inquire into the working of the Factory and Workshops Acts, Vol. I, p. 56. London, 1876.

[2] Decision of the United States Supreme Court in Curt Muller *v.* State of Oregon, and Brief for the State of Oregon, 1907; also W. C. Ritchie & Co. *v.* Wayman and Davies, in the Supreme Court of Illinois, December, 1909, by Louis D. Brandeis, assisted by Josephine Goldmark. Fatigue and Efficiency, by Josephine Goldmark, New York, 1912. Le Travail de Nuit des Femmes, par Georges Alfassa, en Revue de Paris, Sept. 15, 1904. Le Travail de Nuit des Femmes dans L'Industrie Francaise, par Marthe Jay, p. 12. Die gewerbliche Nachtarbeit der Frauen, Stephen Bauer, Jena, 1903, p. 2.

[3] See similar statements in Le Travail de Nuit des Femmes dans L'Industrie Francaise, par Marthe Jay, p. 12. Le Travail de Nuit des Femmes, par Georges Alfassa, en Revue de Paris, Sept. 15, 1904, pp. 367–389.

---

[1] Bulletin of International Labor Office (1906), p. xxxiii. Spain and Denmark were the two remaining countries.

[2] Arkansas, Connecticut, Indiana, Massachusetts, Nebraska, New York, Oregon, Pennsylvania, and South Carolina.

CHAPTER VI.

WAGES AND EARNINGS IN BOSTON.

Custom dressmaking with its emphasis on fine handwork is still, at the opening of the twentieth century, primarily woman's work. The last official statistics given for this branch of the trade were those collected in 1900. In that year the average number of men, women, and children employed in custom and factory dressmaking, and the wages received by each group, were as follows:

TABLE 41.—NUMBER AND WAGES OF MEN, WOMEN, AND CHILDREN IN CUSTOM DRESSMAKING AND IN MANUFACTURING SHOPS IN THE UNITED STATES.[1]

Workers.	Custom shops.				Manufacturing shops.			
	Average number employed.	Per cent of average number of wage-earners.	Total wages paid.	Per cent of total wages paid.	Average number employed.	Per cent of average number of wage-earners.	Total wages paid.	Per cent of total wages paid.
Men	4,379	9.6	$2,943,175	20.6	26,109	31.2	$15,790,572	48.5
Women	40,835	89.6	11,363,683	79.1	56,866	67.9	16,675,390	51.2
Children	381	.8	45,595	.3	764	.9	120,139	.3
Total	45,595	100.0	14,352,453	100.0	83,739	100.0	32,586,101	100.0

[1] United States Census, 1900. Manufactures, Pt. III, p. 302.

It will be seen that in custom dressmaking the women represented almost 90 per cent. In the factory branch of the clothing trade, involving heavier machine work, more emphasis on speed, and a greater variety of materials and product, men constituted 31.2 per cent of the force.

Turning to the matter of wages, it appears that in custom dressmaking, although men formed less than 10 per cent of the working force, they drew 20 per cent of the total wages paid. In the manufacturing branch the men also drew more than their proportionate share of the total wages, but relatively their excess is less than in custom dressmaking. This is due to the difference in the skill required of men in the two branches of the trade. However, in both branches the men drew a much larger proportion and the women and children a much smaller proportion of the total wages paid than they represented in the working force.

The investigation on which this chapter is based has been confined to those shops making high-class dresses, custom and wholesale, a branch of the trade which is still practically monopolized by women. While custom dressmaking in Massachusetts has reached a fair degree of development, the manufacturing branch, because of concentration in New York, is unusual and sporadic in this State, and has necessarily been treated more from a comparative standpoint than as a basis of study in itself. The pay-roll records of 735 workers in 14 custom dressmaking shops[1] and of 522 workers in the only two high-class dressmaking factories in Boston making a product selling at wholesale for $18 or more, and the personal testimony of 200 workers visited in their homes form the basis for conclusions on the wage situation in the dressmaking trade of Boston.

The sex and age of the workers studied in Boston are shown in the following table:

TABLE 42.—NUMBER OF MEN, WOMEN, AND CHILDREN UNDER 16 EMPLOYED IN 14 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS IN BOSTON DURING ONE YEAR.

[Based on pay rolls.]

Workers.	Custom shops.																Manufacturing shops.			
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Total number.	Per cent.	X	Y	Total number.	Per cent.
Men	30	6	....	....	1	2	....	....	....	....	....	....	....	....	39	6.5	7	15	22	4.2
Women	97	83	59	44	38	27	55	34	35	25	10	11	17	10	545	90.8	69	431	500	95.8
Children	....	10	....	1	....	....	1	1	2	....	1	....	....	....	16	2.7	....	....	....	....
Total	127	99	59	45	39	29	56	35	37	25	11	11	17	10	600	100.0	76	446	522	100.0

Comparing these figures with those from the census just given, it appears that the proportion of women in the custom trade in Boston does not differ very greatly from that in the whole Union. In factory dressmaking, however, Boston shows a much larger proportion of women than are found in the trade as a whole.

This is largely due to the fact that "women's clothing trade, factory product," as described by the census, includes much of the heavy wear largely made by men, while the "factory dressmaking" studied in Boston is confined to the making of a product similar to that of the custom shop—light-weight dresses of silk and chiffon, on which women are principally employed, men appearing only as designers, foremen, cutters, pressers, and shippers. Children under 16 formed 2.7 per cent of the 600 custom workers employed in 14 custom shops in Boston during the year 1910–11, while none were found among 522 factory workers. Public sentiment, the activity of the Consumers' League, and the small value of girls under 16 in a dressmaking factory militate against their employment. They are used as errand, floor, and stock girls, but Boston employers show an increasing unwillingness to employ them even on these tasks, saying they are too young and irresponsible to compensate for the trouble they make. More than two-thirds of the children under 16 in the custom trade earned less than $5 a week.

---

[1] The records of 600 workers appeared on the pay rolls of the 14 custom shops during a one-year period, September, 1910, to September, 1911. As an additional four months' record from September to December, 1911, was taken from several shops to gain information concerning the effect of the summer vacation on the stability of the force, the wages of the additional 135 new workers who appeared during this period have been used in some tables to make as large and representative a group as possible on which to base conclusions.

Turning to a consideration of weekly wages, the following table shows the number and per cent of men, women, and children in different wage groups:

TABLE 43.—CLASSIFIED WEEKLY WAGES OF MEN, WOMEN, AND CHILDREN UNDER 16 IN 14 CUSTOM DRESSMAKING AND 2 MANUFACTURING SHOPS, IN BOSTON.

[Based on pay rolls.]

Classified weekly wages.	Custom shops.								Manufacturing shops.[1]					
	Men.		Women.		Children.		Total.		Men.		Women.		Total.[2]	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
$1 and under $5	.....	.....	62	9.3	17	68.0	79	10.8	.....	.....	70	14.9	70	14.1
$5 and under $10	3	7.1	372	55.7	8	32.0	383	52.2	6	27.3	296	62.8	302	61.1
$10 and under $15	6	14.3	181	27.1	.....	.....	187	25.4	4	18.2	95	20.2	99	20.1
$15 and under $20	6	14.3	30	4.5	.....	.....	36	5.0	7	31.8	8	1.7	15	3.0
$20 and under $25	20	47.6	4	.6	.....	.....	24	3.3	1	4.6	1	.2	2	.5
$25 and under $30	2	4.8	5	.8	.....	.....	7	1.0	.....	.....	.....	.....	.....	.....
$30 and under $35	2	4.8	3	.4	.....	.....	5	.7	1	4.5	1	.2	2	.5
$35 and under $40	1	2.4	.....	.....	.....	.....	1	.1	.....	.....	.....	.....	.....	.....
$40 and under $45	.....	.....	.....	.....	.....	.....	.....	.....	2	9.1	.....	.....	2	.5
$45 and under $50	1	2.3	.....	.....	.....	.....	1	.1	.....	.....	.....	.....	.....	.....
$50 and under $60	.....	.....	1	.1	.....	.....	1	.1	1	4.5	.....	.....	1	.2
Unclassified[3]	1	2.4	10	1.5	.....	.....	11	1.3	.....	.....	.....	.....	.....	.....
Total	42	100.0	668	100.0	25	100.6	[4] 735	100.0	22	100.0	471	100.0	493	100.0
Per cent	5.7	.....	90.9	.....	3.4	.....	100.0	.....	4.5	.....	95.5	.....	100.0	.....

[1] No children under 16 employed.

[2] 29 pieceworkers excluded.

[3] Some names appear on the pay roll for a day or two with no wage at all, or several weeks with varying small sums. These are drifters, but worth noting.

[4] Including 135 miscellaneous workers. See note, p. 128.

The difference in the wages of men and women appears very strikingly here. While almost two-thirds of the women employed in custom dressmaking earned less than $10 a week, practically the same proportion of the men earned $20 or more. In factory dressmaking three-fourths of the women earned less and nearly three-fourths of the men earned more than $10 a week.

The table also shows the difference in the opportunities offered by the two branches for earning good wages. In custom dressmaking 35 per cent of the women employed earned $10 or over, against 22.3 per cent in factory dressmaking. Only two women in the latter branch earned as much as or more than $20 a week, while in custom dressmaking nine earned from $20 to $30, three from $30 to $35, and one between $50 and $60. Because of the demand for artistic lines, originality, and individuality, custom dressmaking is unique in the clothing trades for the opportunity open to the women who can meet the required standard. In spite of the opportunity, few are able to measure up to it, and the discouraging fact remains that almost one-half the custom workers and two-thirds of the factory workers earn less than $9, which has been estimated as the minimum living wage in Boston.[1]

The week wage prevails in the high-class dressmaking trade, both custom and manufacturing, in Boston. In the former, the character of the trade makes the week wage preferable for two reasons: First, since custom dressmaking stands for individuality and originality, every gown must be different, which makes the establishment of a piece rate difficult, and, second, the week rate is usually recognized as essential to fine, high-class work, for pieceworkers are likely to be more interested in the amount than the quality of output. In no purely custom shop in Boston was the piece-wage system in use, and in the two wholesale dressmaking shops only 29 of the 522 workers were on piece wage. In the larger factory it was customary to put new workers on a piece rate for a few weeks, to enable the forewoman to set their weekly rates. Since the pieceworkers are few and not representative, they will be excluded from the general discussion of wages in Boston. The following table shows their average weekly wages. It will be seen that 24 of the 29 averaged less than $5 a week and that not one earned $9 a week.

TABLE 44.—CLASSIFIED WEEKLY WAGES OF 29 WOMEN ON PIECEWORK IN 2 MANUFACTURING SHOPS IN BOSTON.[a]

[Based on pay rolls.]

Classified weekly wages.	Number of women earning wage specified.		
	Shop X.	Shop Y.	Total.
Under $1	....	5	5
$1 and under $2	....	3	3
$2 and under $3	3	1	4
$3 and under $4	4	3	7
$4 and under $5	3	2	5
$5 and under $6	1	....	1
$6 and under $7	....	....	....
$7 and under $8	2	....	2
$8 and under $9	1	1	2
Total	14	15	29

[a] Average wage based on number of weeks worked. None worked more than eight weeks in shop X and none more than 13 weeks in shop Y.

One large high-class establishment, doing both custom and retail manufacturing[2] and employing from 400 to 500 workers, was unique in that the piece-wage system was the prevailing method of wage payment, only the heads and a few others receiving a week wage. The piece-wage system is also invading the alteration departments of the large stores. One firm had put all alteration workers on piece rates, while two firms were imposing this form of payment on the seasonal or extra workers only. Although the week wage has the advantage of a definite assured income, the worker may be laid off the moment she can be dispensed with. The pieceworker may, on the other hand, make something, although less than usual, in dull season, if she comes to the factory each day.

---

[1] The Living Wage of Women Workers, by M. Louise Bosworth. [New York, 1911.] pp. 9-11.

[2] Gowns made up in advance of orders and sold to the prospective wearers either through the store or traveling saleswomen.

Although the wages of adult women workers in the dressmaking trade may seem discouraging, comparisòn with other industries shows that relatively they are high. The wages in boot and shoe manufacturing ranked highest of the large manufacturing industries in 1905, with 32.6 per cent earning $9 or more. Wholesale millinery ranked second with 26.6 per cent, women's clothing, factory product, 21.7 per cent, men's clothing 13.1 per cent, printing and publishing 17.7 per cent, bookbinding 11.7 per cent, and paper boxes 8.7 per cent earning $9 or more.[1]

Wages in custom and factory dressmaking secured from local pay rolls are, therefore, much better than those reported for the large manufacturing industries. Forty-nine per cent of the custom workers and 36.3 per cent of the factory workers earned $9 or more. Factory dressmaking turning out a high-class product shows a higher wage standard than the women's clothing trade as a whole, for 67.8 per cent earned less than $8 in the trade as a whole as compared with 47.1 per cent in factory dressmaking in Boston; 78.3 per cent earned less than $9 in the trade as a whole, while 63.7 per cent earned less than $9 in the Boston dressmaking factories. Custom dressmaking with its fine product requiring skill and artistic sense ranks still better, only 33.1 per cent earning less than $8, and 50.6 per cent less than $9.

The difference in opportunity to earn a good wage in the two branches is also apparent; 35.6 per cent of the custom as compared with 22.3 per cent of the factory workers earned $10 or more; 17.9 per cent of the custom workers as compared with 7 per cent of the factory workers earned $12 or more. Six per cent of the custom workers earned more than $15, 2.1 per cent received $20 or more, and 1.4 per cent, $25 or more.

The wage scale of an individual shop is largely determined by the character of its trade and the size of the force. Large and fashionable shops employ more expensive help than is needed in the small shops. In shop A, employing during the year 97 women,[2] 12.4 per cent earned $15 or more; 10.3 per cent, $18 or more, and 4.1 per cent,

---

[1] Special Reports of the Census Office. Manufactures, Part IV, 1905, p. 732.

[2] According to Table 23, pp. 89 and 90, the maximum number employed in shop A in one week was 62.

$25 or more, while in shop C, employing 35, but one woman earned $25, and in only one of the remaining 12 shops was $25 paid. Combining the large shops A to G, each employing a maximum of 25 or more workers, and the small shops H to N, each employing less, fairly definite wage groups appear.

TABLE 45.—CLASSIFIED WEEKLY WAGES OF WOMEN 16 YEARS OF AGE AND OVER WORKING IN LARGE AND SMALL CUSTOM DRESSMAKING AND MANUFACTURING SHOPS FOR A ONE-YEAR PERIOD.

[Based on pay rolls.]

Classified weekly wages.	Women earning classified wages in custom shops.						Women earning classified wages in manufacturing shops.					
	Large shops.		Small shops.		Total.		Large shops.		Small shops.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
$1 and under $5	31	7.7	15	10.5	46	8.5	70	16.8	......	......	70	14.9
$5 and under $10	221	54.9	74	51.8	295	54.1	255	61.3	41	74.6	296	62.8
$10 and under $15	112	27.9	43	30.0	155	28.4	83	20.0	12	21.8	95	20.2
$15 and under $20	25	6.2	2	1.4	27	5.0	6	1.5	2	3.6	8	1.7
$20 and under $25	2	.5	1	.7	3	.5	1	.2	......	......	1	.2
$25 and under $30	2	.5	[1] 3	2.1	5	.9	......	......	......	......	......	......
$30 and under $35	3	.8	......	......	3	.6	1	.2	......	......	1	.2
$50 and under $60	1	.3	......	......	1	.2	......	......	......	......	......	......
Unclassified	5	1.2	5	3.5	10	1.8	......	......	......	......	......	......
Total	402	100.0	143	100.0	545	100.0	416	100.0	55	100.0	471	100.0

[1] The $25 wage is abnormal in the small shop employing less than 25 workers. These three were tried out in one year in one shop where the employer did not personally conduct the business.

The proportion, more than one-half earning $5 to $10, and one-fourth, $10 to $15, is approximately the same in both, but the difference appears at the extremes. Those earning $15 and over were 8.3 per cent of the total employed in the large shops and but 4.2 per cent in the small, while they constitute 7.2 per cent of the force in the combined shops, illustrating the influence of the large shops in the returns for the trade. As the other extreme the $1 to $5 workers form 10.5 per cent in the small shops and 7.7 per cent in the large establishments. Most of the low-wage earners are young learners, 18 to 20 years old, who can be profitably employed in the small shops where they work directly under and with their employer.

The lower wage scale of the small shop raises the question: To what extent does the proportion of learners explain the difference? Slightly more than one-fourth of the women 16 years of age and over employed in the large shops were earning less than $8, and a little more than one-fifth of these were under 18 years of age. Almost one-third of the women in the small shops earned less than $8 and one-fifth of these were under 18 years of age. The lower wage scale of the small shop large enough to keep a pay roll, therefore, is explained by the class of work and type of product rather than by the immaturity of the workers. The decline of the small shop is therefore a dubious misfortune, for the large shop, in spite of less individualism and greater subdivision of labor, does not necessarily, as the census has pointed out, mean a lower wage scale.[1]

TABLE 46.—PROPORTION OF WORKERS EARNING LESS THAN $8, AND PROPORTION OF THESE UNDER 18 YEARS OF AGE, BY LARGE AND SMALL SHOPS.

[Based on pay rolls.]

Item.	Large shops.		Small shops.	
	Number.	Per cent.	Number.	Per cent.
Workers employed..........	402	....	143	....
Earning under $8.......	115	28.6	45	31.5
Under 18 years of age....	26	22.6	9	20.0

While the worker in the small shop completes a whole, the worker in the large shop completes a specific part and, because of the superior product, an even higher degree of efficiency is sometimes required from the subordinate workers, while the increased supervisory force increases the wage scale greatly. The disappearance of the small shop with its opportunities for training young workers, however, is leaving a gap in the industrial world which should be bridged by such educational agencies as are necessary to equip the prospective workers.

Since the occupation signifies a fairly definite degree and type of ability, it determines to a large degree the wage. The 25 or more occupations in the dressmaking trade may be grouped into three classes—the professional, the purely industrial, and the general service. With the latter may be included the clerical workers. The professional and the general service groups constitute the extremes in skill, ability, and consequent wage, while the industrial workers constitute the great middle class.

The industrial class comprises the plain sewers and finishers, embroiderers, collar and lining makers, machine operators, and pressers, all of whom need manual skill primarily. They formed more than one-half (55 per cent) of the 600 custom workers and almost two-thirds (62.5 per cent) of the 522 factory workers employed during 1910–11 in the 14 shops and two factories studied.

The professional class comprises the designers, forewomen, cutters, fitters, shoppers, tailors, drapers, and makers, who stand for artistic sense, creative and administrative ability in addition to manual skill and constitute somewhat more than one-fourth (29.8 per cent) of the custom but only 15.9 per cent of the factory workers. The general service and clerical group comprises the traveling saleswomen, models of the factory branch, office force, and the stock and errand girls. constituting 7 per cent of the custom and 4.8 per cent of the factory workers.

---

[1] United States Census of Manufactures, 1905, Pt. IV, p. 709.

The industrial group and the unclassified workers, who are largely the drifters of the trade, occupy an unduly large place in the working force for a one-year period because of their shifting and instability. In the week when the largest number was employed the professional group formed 33.8 per cent of the custom and 21.9 per cent of the factory workers. The industrial group formed 53.3 per cent of the custom workers as compared with 66 per cent of the factory force. The clerical and general service represented about the same proportion in both, 6.1 per cent in the custom trade and 6.5 per cent in the factory branch. The unclassified group formed 6.9 per cent of the custom and 5.6 per cent of the factory workers.

The following table shows both the division of the working force among these three groups and the classified weekly wages within each group:

TABLE 47.—CLASSIFIED WEEKLY WAGES OF 600 CUSTOM WORKERS, BY OCCUPATIONS.

[Based on pay rolls.]

Occupation.	$1 and under $5	$5 and under $10	$10 and under $15	$15 and under $20	$20 and under $25	$25 and under $30	$30 and under $35	$35 and over.	Unclassified.	Total. Number.	Total. Per cent.
Professional.											
Designers and forewomen					1	4		1		6	1.0
Tailors:											
Men		2	6	6	18	1	1	2		36	8.7
Women		2	10	3		1				16	
Cutters			3			1				4	.7
Fitters			3	3			[1] 1			7	1.2
Shoppers			1							1	.1
Drapers:											
Waists		1	[2] 40	6			1			48	15.0
Skirts		3	23	6	2		1			35	
Sleeves		1	5	1						7	
Makers:											
Waists		5	6							11	3.1
Skirts		2	5							7	
Sleeves			1							1	
Total		16	103	25	21	7	4	3		179	29.8
Industrial.											
Finishers:											
Waists	12	80	18	3						113	50.2
Skirts	5	74	12							91	
Sleeves	1	9								10	
Finishers and plain sewers	22	60	4						1	87	
Embroiderers		6	2							8	1.3
Collar makers		1								1	.2
Lining makers	1	6	[3] 1							8	1.3
Machine operators		6	5							11	1.8
Pressers		1								1	.2
Total	41	243	42	3					1	330	55.0
Clerical and general service.											
Office		3	4	4						11	1.8
Stock and errand girls	19	8	2	[4] 1					1	31	5.2
Total	19	11	6	5					1	42	7.0
Unclassified	1	29	10	1					8	49	8.2
Grand total	61	299	161	34	21	7	4	3	10	600	100.0

[1] Head fitter. [2] Occupation not definitely specified, 3. [3] Head of linings. [4] Head of stock.

It appears from this that the workers in each division of the custom force show a characteristic earning capacity. Almost three-fourths (73.7 per cent) of the industrial workers came within the $5 to $10 group, a similar proportion, 71.5 per cent, of the professional group earned from $10 to $20, and nearly one-half of the general and clerical workers earned under $5. The workers of the professional group comprise the widest range of occupations, ability, and wage, for above the makers and drapers, who constitute the majority and congregate within the $10 to $15 group, are the designers and forewomen, tailors, cutters, and fitters, 44.9 per cent of whom earn $20 or more, and at the top appear a few heads and experts earning from $30 to $50 a week. In the clerical and general service group at the one extreme are the young errand girls earning less than $5, and at the other the $15 bookkeeper and $18 head of stock in the large commercialized shop.

Much greater standardization of wage, work, and workers appears in the factory trade, as already noted; nearly two-thirds of the working force are industrial workers and need manual skill primarily. More than three-fourths of the workers in each of the three groups come within the $5 to $15 group. Power-machine operators and finishers or plain sewers constituted more than one-half the working force; but 13.2 per cent of the women were drapers and designers and forewomen typifying artistic skill or administrative ability, and few even of these exceeded $15. The new opportunity for women appears in the clerical and general service group, in the models earning from $10 to $15, and the traveling saleswomen from $15 to $20.

TABLE 48.—CLASSIFIED WEEKLY WAGES OF 522 FACTORY WORKERS,[1] BY OCCUPATIONS.

[Based on pay rolls.]

Occupation.	$1 and under $5	$5 and under $10	$10 and under $15	$15 and under $20	$20 and under $25	$25 and under $30	$30 and under $35	$35 and over.	Total.	
									Number.	Per cent.
Professional.										
Designers and foremen								3	3	2.1
Designers and forewomen		1	2	3	1		1		8	
Cutters, men		3	1	5	1		1		11	2.1
Drapers:										
Waists		20	24	1					45	11.7
Skirts	2	4	10						16	
Total	2	28	37	9	2		2	3	83	15.9
Industrial.										
Finishers and plain sewers	48	105							153	29.3
Machine operators	1	[2] 81	32						114	23.6
Sample makers			3						3	
Tuckers		2	4						6	
Pieceworkers	24	5							29	5.6
Examiners		1	1						2	.4
Pressers:										
Men		1	2	2					5	3.6
Women		6	6	2					14	
Total	73	201	48	4					326	62.5

---

[1] Of the professional group, 78.3 per cent earn from $5 to $15; of the industrial group, 76.4 per cent earn from $5 to $15; and of the clerical and general service group, 76 per cent earn from $5 to $15.

[2] One man.

TABLE 48.—CLASSIFIED WEEKLY WAGES OF 522 FACTORY WORKERS, BY OCCUPATIONS—Concluded.

Occupation.	$1 and under $5	$5 and under $10	$10 and under $15	$15 and under $20	$20 and under $25	$25 and under $30	$30 and under $35	$35 and over.	Total.	
									Number.	Per cent.
Clerical and general service.										
Traveling saleswomen	......	......	......	1	......	......	......	......	1	.2
Models	......	......	6	......	......	......	......	......	6	1.1
Office	......	1	3	1	......	......	......	......	5	1.0
Stock, errand, and floor girls	4	[1] 8	......	......	......	......	......	......	12	2.3
Shippers, men	......	......	1	......	......	......	......	......	1	.2
Total	4	9	10	2	......	......	......	......	25	4.8
Unclassified	15	69	4	......	......	......	......	......	88	16.8
Grand total	94	307	99	15	2	......	2	3	522	100.0

[1] One boy.

But the significance of the weekly wage in a skilled trade like dressmaking must be interpreted by two important factors which largely determine it, age and experience.

Since the value of the worker is dependent on "common sense," as the dressmakers phrase it, and on the manual skill accompanying maturity, the wage is to a certain extent determined by age. The young worker under 18 has a very small place in the trade, constituting but 8.5 per cent of the 600 custom workers studied from pay rolls. Table 49 shows the weekly wages of 95 workers under 18. Approximately, two-thirds of the 14 to 16 year old girls earned less than $5 as compared with one-fourth of those from 16 to 18 years; 45.6 per cent of those 16 to 18 years old earned less than $6 as compared with about the same proportion, 40.7 per cent, of the 14 to 16 year group who earned less than $4. Practically the same proportion earned less than $8 and none earned $9.

TABLE 49.—CLASSIFIED WEEKLY WAGES OF WORKERS, BY TWO CLASSIFIED AGE GROUPS.

[Based on pay rolls and personal interviews.]

Classified weekly wages.	Workers 14 and under 16 years.		Workers 16 and under 18 years.	
	Number.	Cumulative per cent.	Number.	Cumulative per cent.
Under $2	1	3.7	1	1.5
Under $3	4	14.8	4	5.9
Under $4	11	40.7	9	13.2
Under $5	17	63.0	19	27.9
Under $6	19	70.4	31	45.6
Under $7	25	92.6	56	83.8
Under $8	26	96.3	65	95.6
Under $9	27	100.0	68	100.0

Two of the 200 workers personally interviewed were under 16, one earning $5 and one $6 a week as finishers. The one receiving $5 had attended the Boston Trade School and the one receiving $6 had gained experience sewing at home for younger brothers and sisters and at public night school, so both had been able to enter the shop as sewers, which is unusual for girls of this age.

While it was impossible to secure the ages of all the older workers studied on pay rolls, the women of 16 to 20 years constituted 31.5 per cent of the 200 personally visited, and 93.7 per cent of these earned less than $9. Almost one-half (49.5 per cent) of the 200 workers visited were under 22 years of age and just two-thirds (66.7 per cent) of this group earned less than $8, while but 9.9 per cent of the women 22 or more years of age earned less than this minimum. To what extent the large proportion in the low-wage group may be explained by youth and immaturity it is impossible to say, because of lack of official statistics. Observation in Boston, Glasgow, and Paris, however, confirms the belief that a large proportion of the regular working force in the shops is made up of comparatively young women.

Up to 35 years the workers show in general a tendency to advancement in wage. The age of 35 represents the climax of opportunity in the trade. Those who have the capacity for leadership have been discovered and brought to the front. Those who have not reached success before this will probably not advance much beyond the position they then hold.

TABLE 50.—AGE GROUPS OF WORKERS, BY CLASSIFIED WEEKLY WAGES.

[Based on personal interviews.]

Age group.	Number of workers earning—													
	Under $5	$5 and under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and under $18	$18 and under $20	$20 and under $25	$25 and over.	Others.[1]	Total.
Under 16 years		1	1											2
16 and under 18 years	2	6	9	4	2									23
18 and under 20 years	4	1	20	5	6		1	1					2	40
20 and under 22 years			6	7	6	7	3	3	1				1	34
22 and under 25 years		1	1	4	4	1	6	2	1				1	21
25 and under 30 years				1	2	3	6	5	2		1	1	2	23
30 and under 35 years				1	1	2	1	2	3	3	1	4	2	20
35 and under 40 years						5		3	5	1		1	5	20
40 and under 45 years				1		3		2	3				3	12
45 and under 50 years				1				1		1				3
50 years and over						1							1	2
Total	6	9	37	24	21	22	17	19	15	5	2	6	17	200

[1] Independents, pieceworkers, and drifters.

The wage groups, therefore, have a fairly definite personnel. The less than $7 group is distinctly the zone of the young worker who is under the age of 20. The $7 and less than $10 group includes workers of all ages from the young girl under 18 to the woman over 50, because it represents only mediocre manual skill. The $10 and less than $15 group and the $15 and under $18 group show workers of a higher degree of artistic and creative ability, excluding the very young and including some women in the forties who have reached this stage earlier in their career but never advanced beyond it. The $18 and over wage group contains the artists, administrators, and creators, and consists for the most part of women of 25 to 40, excluding both young and old. Two classes at the extremes—those earning less than $5 and those earning over $18—are clear-cut types, the former comprising the young learner and the latter the expert; the $7 to $10 group at the center is a motley collection of all ages, the workers here possessing but mediocre skill.

The length of experience as well as age determines the value and earning capacity of the worker, since the dressmaking trade requires training of the eye and hand and development of skill and taste. The wage increases with experience up to 15 years in the trade, after which the relation becomes decreasingly apparent. Ten years or more seems to be necessary to place the worker within the professional group earning $15 or more, but in five years she should be earning a living wage of $9 or more.

TABLE 51.—RELATION OF EXPERIENCE TO WEEKLY WAGES.

[Based on personal interviews.]

Years of experience.	Number of workers earning weekly—														
	Under $4	$4 and under $5	$5 and under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and under $18	$18 and under $20	$20 and under $25	$25 and over.	Others.	Total.
Under 1 year	1	3	3	8	2										17
1 and under 2 years		2	5	14	2	4	2		1					1	31
2 and under 3 years			1	10	8	3		2							24
3 and under 4 years				3	4	5	5	1	2					3	23
4 and under 5 years				2	2	2	1	4							11
5 and under 6 years					3	2	4		2						11
6 and under 7 years						3	1	2	1						7
7 and under 8 years						1	1	1	1	2					6
8 and under 9 years							1	2	1	1				1	6
9 and under 10 years							1	1	3						5
10 and under 15 years					1		2	3	3	3	1	2	1	2	18
15 and under 20 years					1		2		3	4	2		5	4	21
20 years and over					1		1	1	2	4	2			6	17
Unclassified						1	1			1					3
Total	1	5	9	37	24	21	22	17	19	15	5	2	6	17	200

The wage group of less than $7, therefore, is primarily the zone of the young worker under 20 years of age and with less than 5 years' experience. The $7 and less than $10 group includes not only young and old but women with a working experience ranging from 1 year or less to 20 years and more. The experts earning $18 or more are, in the main, women 25 to 40 years of age with a working experience of 10 but less than 20 years.

But the weekly wage by no means gives a true insight into the actual weekly earnings, for days lost cause a surprising reduction of the nominal weekly wage. Holidays, of which there are nine in Massachusetts, and occasional days lost for illness or personal reasons reduce the earnings, for the workers are paid for actual service only. Deduction for tardiness is made in two custom shops where time clocks have been installed, but this is unusual.[1]

The irregularity of work and consequent variation between the nominal wage and actual earnings differ with different workers and different shops. The following table shows the extent to which the workers in one shop are affected by such irregularity:

TABLE 53.—OCCUPATION, WAGE, AND PROPORTION OF FULL WEEKS OF SIX DAYS EACH FOR ALL WORKERS EMPLOYED 39 OR MORE WEEKS IN SHOP "A" DURING WORKING SEASON.

[Based on pay roll.]

Occupation.	Nominal weekly wage.	Total number weeks worked.	Number full weeks of 6 days each.	Number part weeks of less than 6 days.
Head skirt draper	$18	50	11	39
Waist draper	9	50	30	20
Head tailor	30	49	41	8
Clerical	8	48	15	33
Head fitter	30	46	37	9
Fitter	18	44	30	14
Fitter and cutter	25	43	34	9
Shopper	12	43	29	14
Embroiderer	10	43	28	15
Sleeve draper	14	42	22	20
Waist draper	16	41	25	16
Tailor	21	40	22	18
Waist finisher	5	39	7	32

The head skirt draper on $18 a week had only 11 full weeks of 6 days each and consequently received her nominal wage of $18 for only this number out of a working season of 50 weeks. The waist finisher on $5 a week received that sum for but 7 out of the 39 weeks in the shop. The head tailor and head fitter on $30 a week do not suffer deduction, however, for occasional days lost, since those earning more than $25 are usually on a professional basis. In general, the well-paid workers seem to lose less time from short absences; this may be partially due to their sense of responsibility as well as to better conditions. Employers frequently complain of the irresponsibility of many workers who stay out for all sorts of reasons, greatly handicapping those in the shop. Whatever is the cause, 100 people working 40 to 45

---

[1] The various causes of reduction of the income of workers in other industries are discussed in The Living Wage of Women Workers, by M. Louise Bosworth, pp. 33–39.

The wage groups, therefore, have a fairly definite personnel. The less than $7 group is distinctly the zone of the young worker who is under the age of 20. The $7 and less than $10 group includes workers of all ages from the young girl under 18 to the woman over 50, because it represents only mediocre manual skill. The $10 and less than $15 group and the $15 and under $18 group show workers of a higher degree of artistic and creative ability, excluding the very young and including some women in the forties who have reached this stage earlier in their career but never advanced beyond it. The $18 and over wage group contains the artists, administrators, and creators, and consists for the most part of women of 25 to 40, excluding both young and old. Two classes at the extremes—those earning less than $5 and those earning over $18—are clear-cut types, the former comprising the young learner and the latter the expert; the $7 to $10 group at the center is a motley collection of all ages, the workers here possessing but mediocre skill.

The length of experience as well as age determines the value and earning capacity of the worker, since the dressmaking trade requires training of the eye and hand and development of skill and taste. The wage increases with experience up to 15 years in the trade, after which the relation becomes decreasingly apparent. Ten years or more seems to be necessary to place the worker within the professional group earning $15 or more, but in five years she should be earning a living wage of $9 or more.

TABLE 51.—RELATION OF EXPERIENCE TO WEEKLY WAGES.

[Based on personal interviews.]

Years of experience.	Number of workers earning weekly—														
	Under $4	$4 and under $5	$5 and under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and under $18	$18 and under $20	$20 and under $25	$25 and over.	Others.	Total.
Under 1 year	1	3	3	8	2										17
1 and under 2 years		2	5	14	2	4	2		1					1	31
2 and under 3 years			1	10	8	3		2							24
3 and under 4 years				3	4	5	5	1	2					3	23
4 and under 5 years				2	2	2	1	4							11
5 and under 6 years					3	2	4		2						11
6 and under 7 years						3	1	2	1						7
7 and under 8 years						1	1	1	1	2					6
8 and under 9 years							1	2	1	1				1	6
9 and under 10 years							1	1	3						5
10 and under 15 years					1		2	3	3	3	1	2	1	2	18
15 and under 20 years					1		2		3	4	2		5	4	21
20 years and over					1		1	1	2	4	2			6	17
Unclassified						1	1			1					3
Total	1	5	9	37	24	21	22	17	19	15	5	2	6	17	200

The wage group of less than $7, therefore, is primarily the zone of the young worker under 20 years of age and with less than 5 years' experience. The $7 and less than $10 group includes not only young and old but women with a working experience ranging from 1 year or less to 20 years and more. The experts earning $18 or more are, in the main, women 25 to 40 years of age with a working experience of 10 but less than 20 years.

But the weekly wage by no means gives a true insight into the actual weekly earnings, for days lost cause a surprising reduction of the nominal weekly wage. Holidays, of which there are nine in Massachusetts, and occasional days lost for illness or personal reasons reduce the earnings, for the workers are paid for actual service only. Deduction for tardiness is made in two custom shops where time clocks have been installed, but this is unusual.[1]

The irregularity of work and consequent variation between the nominal wage and actual earnings differ with different workers and different shops. The following table shows the extent to which the workers in one shop are affected by such irregularity:

TABLE 59.—OCCUPATION, WAGE, AND PROPORTION OF FULL WEEKS OF SIX DAYS EACH FOR ALL WORKERS EMPLOYED 39 OR MORE WEEKS IN SHOP "A" DURING WORKING SEASON.

[Based on pay roll.]

Occupation.	Nominal weekly wage.	Total number weeks worked.	Number full weeks of 6 days each.	Number part weeks of less than 6 days.
Head skirt draper.	$18	50	11	39
Waist draper......	9	50	30	20
Head tailor........	30	49	41	8
Clerical............	8	48	15	33
Head fitter.........	30	46	37	9
Fitter..............	18	44	30	14
Fitter and cutter..	25	43	34	9
Shopper...........	12	43	29	14
Embroiderer......	10	43	28	15
Sleeve draper.....	14	42	22	20
Waist draper......	16	41	25	16
Tailor..............	21	40	22	18
Waist finisher.....	5	39	7	32

The head skirt draper on $18 a week had only 11 full weeks of 6 days each and consequently received her nominal wage of $18 for only this number out of a working season of 50 weeks. The waist finisher on $5 a week received that sum for but 7 out of the 39 weeks in the shop. The head tailor and head fitter on $30 a week do not suffer deduction, however, for occasional days lost, since those earning more than $25 are usually on a professional basis. In general, the well-paid workers seem to lose less time from short absences; this may be partially due to their sense of responsibility as well as to better conditions. Employers frequently complain of the irresponsibility of many workers who stay out for all sorts of reasons, greatly handicapping those in the shop. Whatever is the cause, 100 people working 40 to 45 weeks had a median number of only 30 full weeks of 6 days and consequently only 30 full weeks' pay.

---

[1] The various causes of reduction of the income of workers in other industries are discussed in The Living Wage of Women Workers, by M. Louise Bosworth, pp. 33-39.

TABLE 53.—PROPORTION OF WEEKS NOT BROKEN BY SHORT ABSENCES, IN A 50-WEEK PERIOD, FOR 600 CUSTOM WORKERS.

[Based on pay rolls.]

Weeks worked.	Number of persons working specified weeks.	Median number full weeks of 6 days worked.
50 weeks	2	20
45 and under 50 weeks	29	37
40 and under 45 weeks	100	30
35 and under 40 weeks	53	23
30 and under 35 weeks	35	22
25 and under 30 weeks	32	15
20 and under 25 weeks	17	13
15 and under 20 weeks	39	10
10 and under 15 weeks	55	7
5 and under 10 weeks	85	3
1 and under 4 weeks	151	....
Unclassified	2	....
Total	600	....

The number of full weeks with full pay ranges from one-half to three-fourths of the number of weeks worked by 600 custom workers. The actual earnings of the workers are, therefore, much lower than the nominal weekly wage. Taking the more stable group employed 25 or more weeks in a single shop as a basis, the following table shows the relation between the nominal and the actual wages:

TABLE 54.—NOMINAL AND ACTUAL AVERAGE WEEKLY WAGES OF 250 CUSTOM AND 139 FACTORY WORKERS EMPLOYED 25 OR MORE WEEKS IN ONE SHOP.[1]

[Based on pay rolls.]

Classified weekly wages.	Workers in custom shops.				Workers in factories.			
	Nominal wages.		Actual average wages.[2]		Nominal wages.		Actual average wages.[2]	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under $5	14	5.6	28	11.2	5	3.6	10	7.2
Under $6	21	8.4	44	17.6	7	5.0	19	13.7
Under $7	39	15.6	69	27.6	14	10.1	36	25.9
Under $8	60	24.0	115	46.0	20	14.4	70	50.4
Under $9	101	40.4	139	55.6	42	30.2	99	71.2
Under $10	127	50.8	169	67.6	70	50.4	112	80.6
$9 and over	149	59.6	111	44.4	97	69.8	40	28.8
$10 and over	123	49.2	81	32.4	69	49.6	25	17.9
$12 and over	74	29.6	47	18.8	31	22.3	13	9.4
$15 and over	34	13.6	24	9.6	13	9.4	7	5.0
$18 and over	21	8.4	15	6.0	8	5.8	2	1.4

[1] The 250 custom workers include 9 men, none receiving less than $9, and 5 children under 16, four of whom earned less than $5, and the 139 factory workers include 8 men, none earning less than $12.

[2] Actual average weekly wages are based on total income of those working 25 weeks or more divided by the number of weeks worked.

Among the custom workers 40.4 per cent nominally received less than $9, but actually the average weekly earnings of 55.6 per cent fell below $9. Almost one-half (49.2 per cent) received a nominal wage of $10 or more, though but 32.4 per cent actually earned this amount. The loss is much heavier, however, in the factory group. Of the 139 employed 25 or more weeks in one shop, 30.2 received a nominal wage of less than $9, while the actual average earnings of 71.2 per cent fell below this minimum; 49.6 per cent received a nominal wage of $10 or more, but the actual average weekly earnings of only 17.9 per cent reached or passed $10.

The cumulative loss of earnings due to short absences of less than one week for 250 custom workers and 139 factory workers employed 25 weeks or more in a single shop was considerable.

TABLE 55.—PERCENTAGE OF REDUCTION OF NOMINAL INCOME CAUSED BY SHORT ABSENCES FOR 250 CUSTOM AND 139 FACTORY WORKERS EMPLOYED 25 OR MORE WEEKS IN A SPECIFIED SHOP, BY TYPES OF DRESSMAKING.

[Based on pay rolls.]

Types of dressmaking.	Percentage of loss.			
	Median.	Upper quartile.	Lower quartile.	Average.
Custom dressmaking	8.7	13.2	6.3	10.5
Factory dressmaking	13.6	17.1	10.7	14.0

The median loss for custom workers was 8.7 per cent and for factory workers 13.6 per cent; the average loss 10.5 per cent for custom and 14 per cent for factory workers. For 56 per cent of these custom workers, the reduction of nominal income amounted to less than 10 per cent, and for 59 per cent of the factory workers to less than 15 per cent. Therefore, if we desire to estimate the actual earnings of the workers and have not access to pay rolls, the nominal income of custom workers may be reduced about 10 per cent and of factory workers 14 per cent for short absences alone.

While the percentage of loss varies with different types of shops, it also varies with different types of workers. In custom dressmaking the percentage of loss from short absences decreases with increasing wage, ranging from 11.8 per cent for the workers earning less than $5 to 6.3 per cent for the women earning $15 and over, and in factory dressmaking from 14.4 per cent for the workers earning $5 and under $10 to 7.4 per cent for those earning $15 or more.

TABLE 56.—PERCENTAGE OF REDUCTION OF NOMINAL INCOME CAUSED BY SHORT ABSENCES FOR 250 CUSTOM AND 139 FACTORY WORKERS EMPLOYED 25 OR MORE WEEKS IN A SPECIFIED SHOP, BY WAGE GROUPS.

[Based on pay rolls.]

Classified weekly wages.	Custom shops.			Manufacturing shops.		
	Median.	Lower quartile.	Upper quartile.	Median.	Lower quartile.	Upper quartile.
Under $5	11.8	7.3	23.5	13.7	12.6	14.4
$5 and under $10	10.1	6.7	14.0	14.4	11.9	18.4
$10 and under $15	8.5	6.6	12.4	12.8	10.7	17.1
$15 and over	6.3	3.1	10.4	7.4	3.0	10.4
Total	8.7	6.3	13.2	13.6	10.7	17.1

TABLE 48.—CLASSIFIED WEEKLY WAGES OF 522 FACTORY WORKERS, BY OCCUPATIONS—Concluded.

Occupation.	$1 and under $5	$5 and under $10	$10 and under $15	$15 and under $20	$20 and under $25	$25 and under $30	$30 and under $35	$35 and over.	Total.	
									Number.	Per cent.
Clerical and general service.										
Traveling saleswomen	......	......	......	1	......	......	......	......	1	.2
Models	......	......	6	......	......	......	......	......	6	1.1
Office	......	1	3	1	......	......	......	......	5	1.0
Stock, errand, and floor girls	4	[1] 8	......	......	......	......	......	......	12	2.3
Shippers, men	......	......	1	......	......	......	......	......	1	.2
Total	4	9	10	2	......	......	......	......	25	4.8
Unclassified	15	69	4	......	......	......	......	......	88	16.8
Grand total	94	307	99	15	2	......	2	3	522	100.0

[1] One boy.

But the significance of the weekly wage in a skilled trade like dressmaking must be interpreted by two important factors which largely determine it, age and experience.

Since the value of the worker is dependent on "common sense," as the dressmakers phrase it, and on the manual skill accompanying maturity, the wage is to a certain extent determined by age. The young worker under 18 has a very small place in the trade, constituting but 8.5 per cent of the 600 custom workers studied from pay rolls. Table 49 shows the weekly wages of 95 workers under 18. Approximately, two-thirds of the 14 to 16 year old girls earned less than $5 as compared with one-fourth of those from 16 to 18 years; 45.6 per cent of those 16 to 18 years old earned less than $6 as compared with about the same proportion, 40.7 per cent, of the 14 to 16 year group who earned less than $4. Practically the same proportion earned less than $8 and none earned $9.

TABLE 49.—CLASSIFIED WEEKLY WAGES OF WORKERS, BY TWO CLASSIFIED AGE GROUPS.

[Based on pay rolls and personal interviews.]

Classified weekly wages.	Workers 14 and under 16 years.		Workers 16 and under 18 years.	
	Number.	Cumulative per cent.	Number.	Cumulative per cent.
Under $2	1	3.7	1	1.5
Under $3	4	14.8	4	5.9
Under $4	11	40.7	9	13.2
Under $5	17	63.0	19	27.9
Under $6	19	70.4	31	45.6
Under $7	25	92.6	56	83.8
Under $8	26	96.3	65	95.6
Under $9	27	100.0	68	100.0

Two of the 200 workers personally interviewed were under 16, one earning $5 and one $6 a week as finishers. The one receiving $5 had attended the Boston Trade School and the one receiving $6 had gained experience sewing at home for younger brothers and sisters and at public night school, so both had been able to enter the shop as sewers, which is unusual for girls of this age.

While it was impossible to secure the ages of all the older workers studied on pay rolls, the women of 16 to 20 years constituted 31.5 per cent of the 200 personally visited, and 93.7 per cent of these earned less than $9. Almost one-half (49.5 per cent) of the 200 workers visited were under 22 years of age and just two-thirds (66.7 per cent) of this group earned less than $8, while but 9.9 per cent of the women 22 or more years of age earned less than this minimum. To what extent the large proportion in the low-wage group may be explained by youth and immaturity it is impossible to say, because of lack of official statistics. Observation in Boston, Glasgow, and Paris, however, confirms the belief that a large proportion of the regular working force in the shops is made up of comparatively young women.

Up to 35 years the workers show in general a tendency to advancement in wage. The age of 35 represents the climax of opportunity in the trade. Those who have the capacity for leadership have been discovered and brought to the front. Those who have not reached success before this will probably not advance much beyond the position they then hold.

TABLE 50.—AGE GROUPS OF WORKERS, BY CLASSIFIED WEEKLY WAGES.

[Based on personal interviews.]

Age group.	Number of workers earning—													
	Under $5	$5 and under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and under $18	$18 and under $20	$20 and under $25	$25 and over.	Others.[1]	Total.
Under 16 years	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
16 and under 18 years	2	6	9	4	2	.....	.....	.....	.....	.....	.....	.....	.....	23
18 and under 20 years	4	1	20	5	6	.....	1	1	.....	.....	.....	.....	2	40
20 and under 22 years	.....	.....	6	7	6	7	3	3	1	.....	.....	.....	1	34
22 and under 25 years	.....	1	1	4	4	1	6	2	1	.....	.....	.....	1	21
25 and under 30 years	.....	.....	.....	1	2	3	6	5	2	.....	1	1	2	23
30 and under 35 years	.....	.....	.....	1	1	2	1	2	3	3	1	4	2	20
35 and under 40 years	.....	.....	.....	.....	.....	5	.....	3	5	1	.....	1	5	20
40 and under 45 years	.....	.....	.....	1	.....	3	.....	2	3	.....	.....	.....	3	12
45 and under 50 years	.....	.....	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	3
50 years and over	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	2
Total	6	9	37	24	21	22	17	19	15	5	2	6	17	200

[1] Independents, pieceworkers, and drifters.

The wage groups, therefore, have a fairly definite personnel. The less than $7 group is distinctly the zone of the young worker who is under the age of 20. The $7 and less than $10 group includes workers of all ages from the young girl under 18 to the woman over 50, because it represents only mediocre manual skill. The $10 and less than $15 group and the $15 and under $18 group show workers of a higher degree of artistic and creative ability, excluding the very young and including some women in the forties who have reached this stage earlier in their career but never advanced beyond it. The $18 and over wage group contains the artists, administrators, and creators, and consists for the most part of women of 25 to 40, excluding both young and old. Two classes at the extremes—those earning less than $5 and those earning over $18—are clear-cut types, the former comprising the young learner and the latter the expert; the $7 to $10 group at the center is a motley collection of all ages, the workers here possessing but mediocre skill.

The length of experience as well as age determines the value and earning capacity of the worker, since the dressmaking trade requires training of the eye and hand and development of skill and taste. The wage increases with experience up to 15 years in the trade, after which the relation becomes decreasingly apparent. Ten years or more seems to be necessary to place the worker within the professional group earning $15 or more, but in five years she should be earning a living wage of $9 or more.

TABLE 51.—RELATION OF EXPERIENCE TO WEEKLY WAGES.

[Based on personal interviews.]

Years of experience.	Number of workers earning weekly—														
	Under $4	$4 and under $5	$5 and under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and under $18	$18 and under $20	$20 and under $25	$25 and over.	Others.	Total.
Under 1 year	1	3	3	8	2										17
1 and under 2 years		2	5	14	2	4	2		1					1	31
2 and under 3 years			1	10	8	3		2							24
3 and under 4 years				3	4	5	5	1	2					3	23
4 and under 5 years				2	2	2	1	4							11
5 and under 6 years					3	2	4		2						11
6 and under 7 years						3	1	2	1						7
7 and under 8 years						1	1	1	1	2					6
8 and under 9 years							1	2	1	1				1	6
9 and under 10 years							1	1	3						5
10 and under 15 years					1		2	3	3	3	1	2	1	2	18
15 and under 20 years					1		2		3	4	2		5	4	21
20 years and over					1		1	1	2	4	2			6	17
Unclassified						1	1			1					3
Total	1	5	9	37	24	21	22	17	19	15	5	2	6	17	200

The wage group of less than $7, therefore, is primarily the zone of the young worker under 20 years of age and with less than 5 years' experience. The $7 and less than $10 group includes not only young and old but women with a working experience ranging from 1 year or less to 20 years and more. The experts earning $18 or more are, in the main, women 25 to 40 years of age with a working experience of 10 but less than 20 years.

But the weekly wage by no means gives a true insight into the actual weekly earnings, for days lost cause a surprising reduction of the nominal weekly wage. Holidays, of which there are nine in Massachusetts, and occasional days lost for illness or personal reasons reduce the earnings, for the workers are paid for actual service only. Deduction for tardiness is made in two custom shops where time clocks have been installed, but this is unusual.[1]

The irregularity of work and consequent variation between the nominal wage and actual earnings differ with different workers and different shops. The following table shows the extent to which the workers in one shop are affected by such irregularity:

TABLE 52.—OCCUPATION, WAGE, AND PROPORTION OF FULL WEEKS OF SIX DAYS EACH FOR ALL WORKERS EMPLOYED 39 OR MORE WEEKS IN SHOP "A" DURING WORKING SEASON.

[Based on pay roll.]

Occupation.	Nominal weekly wage.	Total number weeks worked.	Number full weeks of 6 days each.	Number part weeks of less than 6 days.
Head skirt draper	$18	50	11	39
Waist draper	9	50	30	20
Head tailor	30	49	41	8
Clerical	8	48	15	33
Head fitter	30	46	37	9
Fitter	18	44	30	14
Fitter and cutter	25	43	34	9
Shopper	12	43	29	14
Embroiderer	10	43	28	15
Sleeve draper	14	42	22	20
Waist draper	16	41	25	16
Tailor	21	40	22	18
Waist finisher	5	39	7	32

The head skirt draper on $18 a week had only 11 full weeks of 6 days each and consequently received her nominal wage of $18 for only this number out of a working season of 50 weeks. The waist finisher on $5 a week received that sum for but 7 out of the 39 weeks in the shop. The head tailor and head fitter on $30 a week do not suffer deduction, however, for occasional days lost, since those earning more than $25 are usually on a professional basis. In general, the well-paid workers seem to lose less time from short absences; this may be partially due to their sense of responsibility as well as to better conditions. Employers frequently complain of the irresponsibility of many workers who stay out for all sorts of reasons, greatly handicapping those in the shop. Whatever is the cause, 100 people working 40 to 45 apprenticeship of the errand-girl service remain. The pay roll of one of the large shops showed a young girl working for no wage some six weeks. A Swedish employer in Boston, a small dressmaker in Cambridge, and one in Worcester reported three months' unpaid apprenticeship during which time the girls ran errands and did some simple sewing; $3 was the usual beginning wage. A young Italian girl of 12 or 13 years in the "North End" of Boston had worked after school until 9 o'clock for a private dressmaker in that neighborhood for a year without pay. Two small employers in Boston reported three months' unpaid apprenticeship with car fare. But generally speaking, unpaid apprenticeship as a means of learning the trade is unusual at present.

---

[1] The various causes of reduction of the income of workers in other industries are discussed in The Living Wage of Women Workers, by M. Louise Bosworth, pp. 33-39.

Two reasons are given by employers for its disappearance: (1) "we can't get girls to serve as apprentices without pay" and (2) "we don't want them—we haven't time to teach." The great and unsatisfied demand for skilled workers in the trade raises the questions: Why do not girls serve the apprenticeship necessary to acquire a good trade? Why, on the other hand, if employers are so desperate for help, do they not try to train their own workers? The answer to these questions isf ound in the evolution of the trade itself. Industrial advancement and competition have resulted in transfer of the place of production to industrial quarters and in the development of systematized organization, which means that every member of the force must show an immediate economic profit. Division of labor is carried to a degree which gives little chance for learning the trade as a whole. Moreover, since heads of sections must make their divisions pay, they have little time or inclination to train the unskilled worker. The restriction of custom dressmaking to house gowns of delicate or perishable materials leaves small opportunity for the beginner and there is very little work left in the professional dressmaker's shop that could be turned over to absolutely unskilled hands. The most simple processes, such as binding of seams, must be done neatly and carefully or the delicate silks and chiffons show bad effects. The hooks and eyes must be sewed on by exact measurements. The collars must fit perfectly. The ability to handle these delicate materials without mussing, soiling, or stretching them is a part of the beginner's education.

What avenue of approach then does the trade itself offer to the young inexperienced worker? Practically the only means of entrance for the young girl who has had no previous training or experience is through "a pseudo apprenticeship," as M. Alfassa dubs it,[1] that is, the errand-girl stage. The errand girl picks up stray bits of information concerning the trade, but this is a slow and haphazard method. The French expression "trottin" and the English word "trotter" well express the errand girl's primary occupation. She runs errands down town to match materials or buy thread or findings, and delivers the gowns at the homes of customers. She may or may not be called upon to sweep and dust. She answers the door bell and the telephone and is general utility girl. One naturally asks: When does she have time to learn anything of the trade? She is, of course, securing a general training in her shopping expeditions, and in the small and medium-sized shop there are many spare moments when she has a chance to use her needle. In a large shop, however, where four or five errand girls are sometimes employed, one for each workroom,[1] these girls, like the other workers, are more specialized and have less time or opportunity for sewing. Although they sometimes work up through the stages of the trade, the system offers occasion for exploitation of children. One young girl who entered a shop as errand girl was at the end of five months put on the sewing force, but another worked six years as errand girl at the end of which time her employer "thought she was ready for sewing."

---

[1] La Crise de l'Apprentissage, par Georges Alfassa, in Annals des Sciences Politiques, July, 1905, pp. 421-441.

In general, a knowledge of the fundamentals of the trade is essential to secure entrance as worker in the shop of to-day. The newspapers are full of advertisements like "Dressmaker apprentices paid, must be good sewers"; "Girl wanted to learn dressmaking, paid while learning, a little experience preferred."[2] The busy dressmaker is rare who will stop to teach the young girl such simple yet essential principles as how to hold a needle, to wear a thimble, to hold the materials so they will not be mussed or soiled, and to develop accuracy of measurement and ability to take neat but rapid stitches. The girl formerly acquired these fundamentals to a certain extent in her own home, but neither home nor shop now gives systematic training along these lines.

"The question that these investigations raise," wrote Mrs. Oakeshott, inspector of women's technical classes in London in 1908, "is whether it [apprenticeship] is worth reviving in any form or whether as a system workroom training is effete and must be replaced."[3] Training in the workroom if properly conducted undoubtedly offers certain advantages. In a small shop where only a few girls are employed the young worker has the advantage of a general training on all parts of the gown under the direct supervision of her employer. She sees the relation of the different parts to the whole. She has the opportunity for adaptation to the discipline of shop hours, learns the necessity for strict application, acquires the art of working with others, and has a chance to develop initiative. In other words, an appreciation of business methods, a realization of the necessity of prompt and efficient service, and a sense of values is cultivated.

---

[1] One large shop advertised for 25 errand girls. Boston Globe, Sept. 16, 1911.

[2] Boston Globe, Oct. 9, 16, 23, 27, 1910, etc.

[3] London County Council, Women's Trades (London, 1908), p. 5.

Only the small shop, however, can provide general training for the inexperienced young girl of to-day; it has been in a sense a training school for many workers in the trade, but census statistics seem to show its disappearance and elimination. Moreover, the small shop, during the last decade, has become very limited in its field, since much of its work now consists largely of alterations and of making a medium-grade product. Thus the young worker's experience is necessarily restricted, she acquires little or none of the science of the trade, and has a very limited opportunity for advancement. Large employers frankly admit the small opportunity for inexperienced workers. The head dressmaker in a large fashionable establishment favored shop training but acknowledged that in her own workroom the girl can be given little attention. "We put her into the workroom and just let her pick up as best she can, but it is a more practical training." "She becomes a helper under one of the more advanced girls," said another. The industry no longer teaches its workers the trade as a whole but allows them to acquire such knowledge as they may be able to "pick up" during their working experience in the shop. The exceptional girl will profit by her opportunity and surmount all difficulties, but the great majority will not.

What can be done to help this great majority bridge the gap? Where can the girl get the fundamentals which will enable her to take advantage of her opportunities to "pick up" in the shop? A cursory glance would seem to show that there are many agencies through which she might secure the fundamentals: the public day school, the night schools, the high school of practical arts, the Young Women's Christian Association classes, the various endowed institutions, both public and private, where sewing classes are held, the private dressmaking schools, and lastly, the new and recent development of the last decade, the trade schools for girls. With the exception of the last method, the purpose and results of all of these efforts may be hastily described.

The aim of the sewing classes of the public day schools has been cultural rather than industrial; to give the girl a certain amount of manual training which has a definite relation to her domestic life, not to equip her to earn her living in that particular trade, any more than the corresponding manual training of the boy is to fit him to become a carpenter. The manual training in the school usually consists in simple sewing for two hours once or twice a week in the upper grades. The young eighth-grade girl who spent a year making a kitchen apron had acquired a knowledge of many processes, such as cutting, basting, hemming, and buttonholing, but she was by no means equipped to maintain a place in a dressmaking shop. She must have more systematic and intensive training to induct her into the trade.

The municipal public school system also provides evening classes which include dressmaking in the curriculum, but these are not industrial training classes nor do they attempt to train for the trade. Their aim is social as well as educational, namely, to make the pupil a more efficient producer and consumer in the home. These classes perform a valuable service if rightly conducted, but they should not be mistaken for industrial training classes. Neither do their pupils increase competition in the trade, as might be supposed, for the majority are heads of families or women with other occupations who are trying to maintain a respectable wardrobe on a scanty income. The teachers questioned knew of none who had gone into the trade, and but two of the 200 workers visited had had any training in the evening schools. Classes in dressmaking in the Young Women's Christian Association, churches, and various endowed institutions of the city all exist for the same purpose—helping the girl or woman to make her own clothes or those of her family.

The high school of practical arts provides a four years' training, but dressmaking classes in such a school turn out few industrial workers for the trade. The economic status of pupils in this school which enables them to devote four years to secondary education enables them to prepare themselves for something better. The four-year course excludes the industrial worker, providing leaders and teachers of the trade and equipping the girl for something above the industrial level.

Private dressmaking schools, though not numerous, range from the small private dressmaker who advertises "Dress cutting taught by practical dressmaker for $5; situation furnished,"[1] to the large school in the center of the business district advertising "100 women and girls wanted at once to learn dressmaking and millinery by the famous system."[2] In spite of the promises held forth by some of these schools, very few workers were found who had been trained in them. One shopworker was attending an evening class for further instruction. Several independent dayworkers had taken a course for which they paid $25, but maintained it had not fitted them for the shop; that the whole training had been based on a particular system which they found used in no shop. Moreover, the cost of instruction in private schools must shut out large numbers and consequently can not supply the needs of the great mass of workers.

The public school authorities of New York and Massachusetts have made a radical diversion within the last decade in assuming the responsibility of training girls directly for the trade. The pioneer trade school for 14 to 16 year old girls was opened in New York in 1902 by Mrs. Mary Schenck Woolman, who became convinced that the young girls of this age who were leaving the public schools could be equipped with the fundamentals which would secure entrance into the desirable trades. "Three principles may be laid down with regard to the desirability of woman's work," wrote Miss Marshall. "First, the occupation must not deaden the natural powers nor reduce the individual to the position of a mere machine; second, it must develop that kind of efficiency which will be valuable to the woman as a home maker; and third, it must not be detrimental physically or morally." [1]

---

[1] Boston Globe, Oct. 30, 1910.

[2] Ibid, Mar. 4, 1910.

The needle trades, accepted as fulfilling these requirements, have been introduced in all the trade schools for girls, and have necessitated a new point of view and new methods in education. The trade school for girls must face two facts: "(1) that the primary aim of the classes was to reach girls who were obliged to go to work young, and who could not, therefore, spend much time in training; (2) that the classes were to train for trades, hence that workshop conditions must be studied and adopted." [2] Investigation showed that a knowledge of the fundamentals was essential to secure a stable position in the shop. The school must lift the girl over the stage of general service which is otherwise the only means of entrance for young and inexperienced workers and which proves a "blind alley" for many. The girl must learn such seemingly elementary yet really difficult things as holding a needle properly and easily, handling delicate materials without soiling or mussing them, basting, sewing and overcasting a seam without puckering it, sewing on hooks and eyes so they meet, and using some judgment in the distance at which they are placed, for on collars they must be close together and on lingerie blouses farther apart; making buttonholes; turning and hemming the bottoms of coats and skirts; putting braid on skirts; gathering; using the proper sized stitch for different materials and different purposes; tacking girdles to waists, or overdresses to the linings; tucking by hand and machine, and alterations.

All these processes constitute the work of the young general worker, helper, plain sewer or finisher, and are practically the only work open to one of limited experience. These, then, are the processes on which she must be drilled, for her capacity to do these things well determines her ability to maintain her position. But not only must she know how to do these things, but in all she must display three very important requisites—neatness, accuracy, and speed.

But when she has met the technical requisites of the trade, there are still important lessons to be mastered. She must become accustomed to the consecutive work of a nine-hour day, so the trade school, attempting to provide a stage of transition, maintains a working day from 8.30 a. m. to 5 p. m., with one hour at noon. Materials are furnished by the school and garments are made for sale or on order under the guidance and direction of teachers who have worked in the trade, providing as much of the shop conditions as is compatible with training. But the trade school wishes to give not only the necessities, but some outlook into the future. Miss Marshall has estimated that three-fourths of the school time must be devoted to meeting the demands of the trade, and in the other fourth, the learner must be equipped with some of the fundamentals which will insure her success as a future worker. For instance, good health is one of her most valuable assets and she must learn how to sit properly without humping over as is the natural inclination of sewers. She must be taught the necessity of good food and what is proper food. She must learn the value and necessity of cleanliness, of fresh air, and of exercise, which are most essential for a sedentary occupation. One mother when asked: "How has Mary been most benefited by the trade school?" said, "She takes a bath every morning and she walks to work." Moreover, she must be given some of the elementary but fundamental principles of "artistic sense," such as pleasing combination of color and materials, artistic design, planning waists, dresses, trimmings; perhaps also she should have a little experience in the more artistic processes of the trade, such as draping and trimming, as an impetus and glimpse into the future rather than as training for an immediate opening.

---

[1] Industrial Training for Women, by Florence M. Marshall, National Society for the Promotion of Industrial Education, Bulletin No. 4, p. 17.

[2] Fifth Annual Report of the Boston Trade School for Girls, December, 1909, p. 12.

The Boston Trade School for Girls, beginning with a curriculum of a few months, has been able to lengthen the course of study to two years, at the end of which time the learner is ready for the trade and has also reached a suitable age for entering it. The test of any vocational school is the recognition given by employers and the success of the students themselves. The remarkable growth of the Boston school during its six years' existence as a private organization, from 15 or so in the summer of 1904 to almost 200 when in 1909 it was taken over under city management, illustrates the attitude of girls and parents toward such a school.[1]

The attitude of the trade is also illustrated by an interesting advertisement appearing in the Boston Globe on October 8, 1910, "Wanted, Sewing girls with Boston Trade School training. Apply to ...." Eighty-four graduates, all who had gone out from the school up to 1910 as accredited and were still employed in the trade, were visited; 34.5 per cent entered the trade with a beginning wage of $4, 33 per cent at $5, and 14 per cent at $6. Three-fourths were less than 18 years old when they began work. The trade-school girl undoubtedly has an immediate financial advantage over the girls trained through the trade. While four-fifths of the workers visited who had entered as paid apprentices and the same proportion of trade-school girls entered under 18 years of age, none of the former group as compared with almost one-half the latter had a beginning wage exceeding $4. The trade school now aims to place girls at not less than $6 a week.[1]

---

[1] The school has continued to grow under public-school management, showing a registration of 594 girls during the school year 1913–14.

In the shop the young graduate finds herself a member of the great "industrial group" described in the chapter on wages (p. 133), which represents primarily manual skill and constitutes 55 per cent of the great working force.[2] The workroom still has much to teach her. She is capable of good workmanship, but she must adapt herself to the discipline of the nine-hour working day, and to the routine work, the short cuts, and the frequently slip-shod methods of the trade. She must realize that economy of time and effort are the watchwords of the trade. She must gain appreciation of business methods, and of the necessity of strict application and efficiency, and acquire the speed demanded in the trade. She must develop initiative and ability to see what is to be done and how to do it in case she has never done it before. Several employers have reported instances of going into the workroom and saying: "I should like some little ornament to give this a finishing touch," or, "Will some one make a bow or knot like this one in the picture?" A young trade-school girl has frequently volunteered to try it and succeeded. All these characteristics the actual shopwork and increasing maturity must develop. The trade school provides the foundation, the impetus, and the broad general outlook. The shop experience and increasing maturity must broaden out her experience and usefulness in the trade.

As she becomes acquainted she is interested and wishes to know how the other workers acquired their trade. Five general methods other than her own are discovered: (1) apprenticeship with tuition for a few of the older or foreign-born women, (2) unpaid apprenticeship, (3) so-called apprenticeship on a small wage involving errands, (4) the errand-girl service solely, and (5) entrance as a regular worker having acquired the fundamentals at home.

About equal proportions entered as paid apprentices on less than $5, and as paid workers on $5 or more, these two methods inducting into the trade two-thirds of those without trade-school training.[3] Apprenticeship with tuition plays a very small part as a means of entrance because the system has disappeared, and the errand-girl service is also an unimportant avenue because few advance through this stage to the sewing processes; the majority "don't like it" and drop out. A somewhat larger proportion entered through unpaid apprenticeship.

---

[1] See intensive study in forthcoming bulletin of the United States Bureau of Labor Statistics on Industrial Efficiency of Girls Trained in Massachusetts Trade Schools.

[2] See Table 47.

[3] Paid apprentices 31 per cent and paid workers 34.5 per cent of 116 workers visited who had not been trained at the trade school.

Two present-day illustrations show the character of training and variety of results secured under the old apprenticeship system. An English woman of 44 years was apprenticed about 30 years ago to a private dressmaker in England with a premium of about $97 paid in advance. In return she received from her employer room and board, the premium money dealt out to her as pocket money in 60-cent bits each week, and thorough training in the making of every part of the dress. At the end of two years she was a full-fledged "bodice-hand," taking the waist from the fitter and finishing it, and after two years as bodice-hand she went to London and secured employment as waist finisher in various firms in London, earning the equivalent of $4.50 a week. She later came to America, and has been in Boston several years working as finisher in various establishments at a weekly wage ranging from $6 to $8. At the age of 44 her opportunities are limited mostly to alterations or machine-made clothing establishments, for she has never advanced beyond the plain-sewer stage. Employment agencies tell her they are not able to furnish her work, as she is too old, and the young women are preferred.

An interesting comparative study of possibilities and capacity to profit by them is seen in the experience of a Swedish woman, who after a year's similar apprenticeship in Sweden, worked a few years in her own country and came to America at the age of 20, unable to speak the English language. In four years she was earning $18 a week, and in eight years $25 a week as fitter in one of the largest and most fashionable establishments in Boston. She had then worked up a small clientele of her own and determined to go into business for herself. With a capital of $350 she opened up a small shop, and by the end of the second season, at the age of 30, was doing an annual business of $12,000.

Unpaid apprenticeship, in which the employee pays the employer nothing and vice versa, represents the second stage in the apprenticeship system. The period of supposed training is much shorter and much less comprehensive than in the original form, and while the original apprenticeship presumably taught the whole trade, these decadent forms more usually teach a particular process. This is shown by the length of time given to the training. More than one-half of the 20 workers had a three months' period without pay; 15 per cent exceeded this, six months, however, being the maximum, and the same proportion had a shorter period ranging from two to six weeks without pay. The most highly paid worker visited had gained her preliminary training through a six months' unpaid apprenticeship in a large shop. She was apprenticed at the age of 14, and after 17 years of varied experience, both as employee and employer, she was earning $50 a week as head dressmaker over 65 employees in a large, fashionable establishment.

So-called apprenticeship on a small weekly wage is the next stage of decadence in the apprenticeship system, which often may mean a combination of general service and sewing. For since the worker is being paid, she is usually expected to earn her wage by numerous duties, such as answering the doorbell or telephone, running errands down town, and perhaps sweeping, for her services in the sewing are, as a whole, of very little value at first unless she has had some training and experience. With increasing development and complication of the trade, however, even this avenue is gradually closing, and the errand-girl stage has become the common, but very limited, opening into the trade for the immature worker. But 12 of the 200 girls visited had advanced through this avenue, and there is a good deal of circumstantial evidence to indicate that, while many enter as errand girls, few advance from this stage to the sewing processes. Twenty per cent of the 200 visited entered the trade as paid workers with a wage of $5 or more, which indicates acquaintance with the fundamental principles of sewing, presumably acquired in the home; three-fourths of these were 18 years of age or more. The opportunity to acquire this experience at home is, however, decreasing with the predominance of cheap ready-made wear.

TABLE 60.—AGE OF 200 WOMEN AT THE TIME OF ENTERING THE TRADE THROUGH FOUR DIFFERENT METHODS.

Age at entering trade.	Means of entrance.							
	Apprenticeship.			Errands.	Paid worker.	Trade school.	Unclassified.	Total.
	Tuition.	Unpaid.	Paid.					
Under 14 years	2	1	1	1				5
14 and under 16 years	1	8	13	6	5	19		52
16 and under 18 years		4	15	4	5	51		79
18 and under 21 years		5	3	1	15	13		37
21 years and over			2		9	1		12
Unclassified	1	2	2		6		4	15
Total	4	20	36	12	40	84	4	200

While the shop pressed by competition can not waste time on a girl who does not adapt herself readily to its needs and demands, the trade school can help and develop many a young girl who later becomes an efficient worker, and by placing her in the shop as a sewer prevents the tremendous waste of the present haphazard methods.

Once established in the trade "it all depends on the girl," employers maintain, but her previous training and the conditions within her particular shop are also determining factors. A young girl of

17 who attended the trade school for a year was placed in one of the largest shops in Boston at a beginning wage of $6 and in less than a year was in charge of linings at $8 with four women working under her. Almost one-half those earning $8 and $9 had reached the $8 wage in less than four years and three-fourths in less than six years. The $9 wage expresses more maturity and experience, the majority having had five or more years' experience, though about one-fourth reached this stage between three and four years. On the other hand old women who have spent all their life in the trade earn $7 and $8. However, almost one-half of the 64 women visited who were within the "industrial group," and earning from $7 to $9, had reached the $7 wage in less than three years and two-thirds in less than four years.

TABLE 61.—LENGTH OF TIME REQUIRED TO REACH THE $7, $8, AND $9 WAGE BY 64 WORKERS IN THE INDUSTRIAL GROUP.

Weekly wage.	Number earning specified wage in time specified.							
	Under 1 year.	1 year and under 2	2 years and under 3	3 years and under 4	4 years and under 5	5 years and under 6	6 years and unclassified.	Total.
$7	7	10	12	12	8	2	13	64
$8	6	5	2	6	10	2	10	41
$9				1	5	7	9	22

After working several years the young helper or finisher is very likely to come down to the shop some morning and find her employer in despair, for several waists and gowns must be sent home that day and the head sleeve girl or the waist draper is sick in bed. The young girl volunteers to solve the problem. "I did waist draping in the trade school several weeks" or "I've often watched the waist draper do it" and her employer under necessity dubiously consents. The young girl glowing with enthusiasm and puffed with pride does her very best and, with occasional help when in doubt, has her share of the work completed at the appointed time. The next time the head girl is ill, or if she leaves to be married, or to go to some other shop, the young helper naturally slips into her place. This is a transition stage between the purely industrial work involving manual skill on which the $5 to $9 workers are employed, and the highly skilled artistic and administrative occupations of the women earning $15 and over.

Into this $10 to $14 wage group our young protégé has advanced after some years' experience. In this stage are the makers who put together the parts of the waists, skirts, and sleeves, perhaps some cutters in the small shops, the majority of the drapers, some of the high-class finishers, who also combine "making" with finishing, and a few expert machine operators. A trade-school girl who went to work at the age of 17 with a beginning wage of $5 had in three years become a waist draper in a large fashionable shop, earning $10 a week. A young colored girl who attended the trade school seven months began work at the age of 16 on $4 a week and in four years was earning $12 as a sleeve draper. Two young sisters who attended the trade school seven and nine months respectively began work at $4 and at $6 and in four years were each earning $11. Two-thirds of the 22 women within this group personally visited had not reached this semiprofessional stage before six years and the majority required a longer period.

It is just about this time, after several years' experience, that the girl begins to aspire to something better. At this stage the majority are about twenty-two or twenty-three years of age. Their parents now begin to expect them to be independent, and they feel they have been in the shop long enough to have some share in the creative work which is so much more interesting and profitable. If now they could have opportunity to study the principles of art and design, planning, cutting, artistic combination of materials, trimmings, and colors, they would appreciate and profit by the training. Their increased maturity and experience would enable them, if properly equipped, to meet a part of the demand for the higher class of workers. The colored girl had never abandoned her outside studying of allied subjects, such as art and design, so she was able when the sleeve draper married to take her place on a wage of $12 with only four years' shop experience. The artistic and administrative positions paying $15 and more are for the most part held by comparatively young women ranging from 25 to 40 years of age. After that they usually go out by the day, do business in their own home, or open a shop. A great many women do not rise above the industrial stage in the trade because of lack of artistic and creative ability. Some who have latent ability might with proper stimulus and impetus develop those qualifications requisite for advancement. Systematic and well organized evening classes offering such training in close cooperation with the needs and demands of the trade would undoubtedly lift many over the obstacles encountered in the shop. The capable girl will surmount them, but the timid and less resourceful will often allow them to conquer her.

So a coordination of technical training and of trade experience is essential. The preliminary training and experience acquired in the trade school shorten the period of acquisition in the shop, and, also, inducts into the trade many who could not surmount the initial obstacles in the trade, such as speed requirements and knowledge of the fundamental and elementary processes. In the trade school, however, the training and development of the young worker is paramount. The interests of the pupil and teacher are identical;

namely, as rapid advancement as the young girl is capable of making. When the pupil has acquired sufficient skill in one process, she is advanced to the next. In the shop, just the contrary is true. Commercial profits are paramount, so that the interests of employer and worker may be by no means always the same. It is, therefore, not surprising if, when rushed with work and under obligation to turn out completed gowns without a flaw, the employer keeps her young employees on those processes which they have learned to do well, and the employees' point of view is quite as natural though shortsighted. When they have mastered one process, the weekly wage they earn at it is frequently more attractive than the prospect of a long period of training with remote possibility of large remuneration.

The chief emphasis of a preliminary trade school must be put upon the actual processes open to the young girl. After several years in the shop, she has acquired sufficient maturity and understanding of the trade to be ready for further advancement. Here, again, many who may not be able to advance on their own initiative to higher positions involving artistic ability and greater technical skill, or to go out by the day as general dressmaker could be assisted in bridging the gap through carefully planned and coordinated evening courses in cutting, fitting and draping. Openings and opportunities are continually appearing in the shop for the woman who is able to grasp them. Courses of training in the advanced processes of the trade have a vital interest and a real significance now for she can put into execution the principles acquired in the class room.

The large opportunity for the home dressmaker in Massachusetts would seem to justify such courses, and the difficulty of securing capable workers for even the limited number of openings in the shop involving advanced technical skill and artistic ability shows the need of increased opportunities for acquiring such skill.

SUMMARY AND OUTLOOK.

The conditions of women's work in the dressmaking trade show some phases where improvement is desirable and possible, but comparison with other women-employing industries shows that it nevertheless has some decided advantages. The development of wholesale manufacture has made serious inroads into the field, but the result has been new adjustments rather than annihilation, for contemporary with the development of the ready-made clothing industry has grown, on the one side, the large custom shop which caters to the numerous class of women demanding exclusive product with individuality and fine handwork. On the other side are the dayworkers, who go from house to house fulfilling these same demands for those who can not pay the prices charged by the large shops. Dressmaking has occupied the largest place in the curriculum of the Massachusetts trade schools, and for this trade the large majority of pupils have been trained, but directors of vocational education and guidance must recognize several fundamental facts: First—They must know their neighborhood and the demand from the standpoint of numbers employed, numbers required, types of shops, and methods of work in the shops to which they cater. Second—The custom dressmaking trade is not a child-employing industry, only one-third of 1 per cent of the working force being under 16 years of age. Third—Since the field of custom dressmaking has become confined principally to a fine product involving skill and artistic ability, the opportunity for entrance is extremely limited, and we have the anomaly of a trade demanding increasing skill and artistic sense and providing decreasing opportunity for its workers to acquire the requisite qualifications. The labor problem, therefore, is at present one of the great difficulties of the trade, both for the employer, because she can not secure the requisite skilled labor, and for the worker, because she has small opportunity to equip herself to meet the demands of the trade.

Since neither home nor shop provides the girl with the requisite elementary principles of the trade, trade schools for girls have been inaugurated in several cities.[1] The young girl who has been well grounded in the elementary principles is lifted over the gap between the home or the school on the one side and the shop on the other and enters as a sewer. It is increasingly the large shop into which the young worker must be inducted, since the small and medium-sized shops are being crushed out under the competition of the wholesale factory, the large custom shop, and the dayworker, but the degree of evolution varies in different localities and must be studied as a local problem. Generally speaking, in the future the young worker will be subjected in an increasing degree to the conditions of the large shop, the most important of which is the division of labor. The tendency of the shop is to make her a specialized worker. The majority of workers will, after some years' experience, need some new impetus and some additional help in acquiring training and experience in the more skilled processes which will enable them either to advance to the higher positions in the shop or to go out by the day as general workers. The public-school system is just beginning to work out the method of providing this additional aid for the older girl.

---

[1] Boston, Worcester, Somerville, Cambridge, and other cities.

Fourth—There is the problem of the girl who must go to work as soon as the law allows and the unskilled industries with wide-open doors and small demand for ability receive the majority. A few may find their way out and drift into something offering more opportunity for development. But everything is against them. Two or three years in unskilled monotonous work, probably accompanied by drifting from factory to factory, does not afford opportunity nor leave time to secure training for something better. Nor have these workers any way of knowing of anything which is better, what are the demands and conditions of work, or how or where to equip themselves. Both social and educational agencies are necessary to provide the impetus, information, and training for these young people handicapped by economic necessity.

The dressmaking trade provides better working conditions and more opportunities for advancement than are found in most of the other large women-employing industries, for the trade is still primarily monopolized by women, so that the young workers work with women, for women, and do not have to face the competition of men. The social content of the working force is distinctly above the industrial level, including a larger proportion of women of more than ordinary education. Moreover, the work itself has certain advantages. The worker handles pretty, dainty things, gains a knowledge of what constitutes good taste in dress, acquires an ability to make her own clothes, and secures in her trade an accomplishment which can always be put to remunerative uses. The nine-hour working day is in some shops frequently and in some never exceeded. In general, the large fashionable shops whose orders all culminate within a very short period and demand immediate execution are the greatest offenders.

While the wages may not meet the standard to be desired, comparison with other industries shows them in a favorable light. Forty-nine per cent of the custom and 36 per cent of the factory workers, 16 years of age and over, studied on pay rolls, received $9 or more; 66.9 per cent of the custom and 52.9 per cent of the factory workers received $8 or more. Few industries show a larger proportion of women in these wage groups. Moreover, the high wage available to the woman with artistic sense and creative ability makes custom dressmaking unique among the large women-employing industries.

Two factors, however, reduce the nominal income, short absences and seasonal fluctuation. Short absences cause an average loss of 10 per cent of the nominal income of custom workers and 14 per cent of that of women in factory dressmaking. Slack season still further reduces the income. The loss through this cause can not possibly be estimated accurately for the drifters since the only source of information—the individual workers' memory—is too unreliable, but a suggestive estimate can be made for the steady workers with the probability that it is higher than that of the less regular workers. But 23 per cent (125) of the 545 women, 16 years and over, employed in custom shops and 14.2 per cent (71) of the 500 employed in factory dressmaking during the trade year, September, 1910, to September, 1911, worked 40 weeks or more in a single shop. Of the 125 custom workers 65.6 per cent and of the 71 factory workers 71.8 per cent earned less than $450. The shrinkage of total income from these causes is not peculiar to the dressmaking trade.

If then they can earn a higher income in a shorter period they have opportunity to fill in if necessary with other occupations, or, if not necessary, to rest. Since, however, a large proportion of the steady workers in the dressmaking trade earn less than the estimated living income during their trade year, even less can the drifters and irregular workers, so a large part of those earning from $7 to $15 must resort to secondary occupations. While the woman who sews has a trade which she can utilize outside the shop, many, because of immaturity, lack of skill, or desire for change, resort to other occupations to piece out their income.

A survey of the trade yields suggestions to the educator, placement agencies, parent, and prospective worker, to those interested in promoting industrial welfare, and to the customer.

For the educator—

1. An intimate knowledge of and acquaintance with the shops and methods of production, and demand for young workers in the particular neighborhood is essential if the pupil is to be adequately trained to meet the demands. A knowledge of the status and trend of the trade in the locality must underlie all industrial education.

2. A system of preliminary training must be devised for the 14 to 16 year old girl, who may through adequate and practical training be put into the shop as a sewer.

3. A part-time course of training might well be developed for the young 14 to 16 year old girls who must go to work as soon as the law allows, but who, according to the law passed in Massachusetts in 1913, must attend continuation schools as soon as they can be provided, thus providing opportunity for them to lift themselves out of their unskilled employment.

4. A systematic advanced course in the skilled processes of the trade should be provided in technical evening classes that the young worker after several years' experience in the shop may equip herself either for the higher shop positions or for independent work.

For the placement agency also—

1. An intimate knowledge of the particular dressmaking shops of the neighborhood is essential, that the adviser may know the requisite qualifications of the workers as to age, degree of skill, and persona characteristics.

2. Equally essential is a knowledge of the seasons of demand, not only in the different types of dressmaking shops, but in all other industries of the neighborhood, that the worker may be directed into other employment during the dull season of her particular shop.

3. The placement agency can do an important service in advising the parent and prospective young worker of conditions in the trade, difficulties to surmount, time necessary to secure a living wage, and demands and requisite qualifications.

4. The placement agency and vocational educators should be in closest touch, the experience and knowledge acquired by each being contributed for the advantage of the other. Some standard test should be evolved by which the capacity of the prospective worker could be determined, so that the facts of the case may be set clearly before her or her parent, and advice given as to whether or not to continue in the trade. The experience and knowledge acquired by placement agents in their contact with worker and employer should react on the curriculum of the school and the training of the child, enabling the school continually to readjust the curriculum and to direct those unfitted or incompetent for this occupation into something within their reach. Many misfits, much discouragement, and much loss of time and earnings might be avoided. Such an agency for wise direction and good advice is one of the crying needs of the time.

The social worker has a great opportunity for valuable service in cooperation with the school and the placement agency. Intimate acquaintance with the families of a particular neighborhood gives weight to her suggestions for further schooling or specialized training; she can moreover inspire the worker to look forward to something better, and give encouragement to further preparation or improvement. This personal relation between social worker and the family and child has been utilized to great advantage in the juvenile advisory committees and care committees associated with the juvenile exchanges recently established in England.

The customer has such an important influence in determining the working conditions in a custom trade that the mere knowledge of the far-reaching effects of her thoughtfulness or negligence ought to be sufficient to better conditions. The customer can do much toward steadying and lengthening the working season by forethought and cooperation with the dressmaker. Late orders and demands for completion within unreasonably short time mean overtime work for some of the employees, with its consequent physical strain, a late and lonely walk home after dark, and an excuse for young workers being on the streets at night. Delay and negligence in paying the bills may mean not only great inconvenience to the employer but delay in the pay of her girls, with the resultant evils of indebtedness and disputes, and sometimes loss of pay due.

Custom dressmaking, which best meets the approval of the fastidious woman, provides better working conditions on the whole and better opportunity for the worker than the factory branch of the trade, and in this branch the customer has the greatest opportunity and influence in determining conditions under which the employees work.

From the general public interested in industrial welfare should come the demand for reasonable and comprehensive legislation and its adequate enforcement. One of the first requests should be for simple and unqualified limitation of hours of work. The exemption clause allowing overtime "where the employment is by seasons" makes enforcement of the law impossible and sanctions and legalizes overstrain and pressure in a trade already characterized by these unfortunate conditions.

The dressmaking trade, most prone and liable to overtime because of the absence of a steadying agency between demand and supply, should be especially the care of the inspection force. Since the large shops employ about three-fourths the workers and are the most liable to pressure from their patrons, the problem is not really so difficult as might seem at first glance, though the small shop should not be overlooked on this account.

LIST OF BOOKS, RECORDS, AND PERIODICALS DEALING WITH WOMEN IN THE CLOTHING TRADE.

UNITED STATES.

I. Special studies in the clothing trade.

Eaton, Isabel. Receipts and Expenditures of Certain Wage Earners in the Garment Trades. (Publication of the American Statistical Association, IV, 1894–95, No. 30.) (Low-skilled branches of the clothing trade in New York and Chicago.)

Henry Phipps Institute Report. Factors Affecting the Health of Garment Makers. (Philadelphia, 1915.)

Pope, Jesse. The Clothing Industry in New York. (New York, 1905.) (Outside ready-made garments for men, women, and children.)

Willett, Mabel Hurd. Employment of Women in the Clothing Trade. (Columbia University Studies, 1902.) (Principally men's clothing trade in New York.)

II. General studies on women in industry.

Abbott, Edith. Women in Industry. (New York, 1910.) (Ch. X. Cursory survey of the evolution of the manufacture of ready-made clothing.)

Adams, T. S., and Sumner, Helen. Labor Problems. (New York, 1907.) (Chs. I and II. Woman and child labor. III. Sweating system.)

Bosworth, Louise M. The Living Wage of Women Workers. (Publication of the Department of Research. Women's Educational and Industrial Union.) (Boston, 1911.)

Butler, Elizabeth. Women and the Trades. (New York, 1911.) (Chapters on "Needle trades" deal with men's clothing, gloves, and millinery.)

Campbell, Helen. Women Wage Earners. (Boston, 1893.)

Goldmark, Josephine. Fatigue and Efficiency. (New York, 1912.)

Kelley, Mrs. Florence. Some Ethical Gains through Legislation. (New York, 1905.) (Chs. III and VII. References to conditions in the clothing trade.)

MacLean, Annie Marion. Wage-earning Women. (New York, 1910.) (Chs. III, IV, and V. References to machine-made-clothing trades.)

Penny, Virginia. The Employments of Women. A Cyclopedia of Woman's Work. (Boston, 1863.)

III. Studies from the vocational standpoint.

Annual Reports of the Boston and Manhattan Trade Schools for Girls.

Chicago School of Civics and Philanthropy. Finding Employment for Children who Leave the Grade Schools to go to Work. (Chicago, 1911.) (Sections on dressmaking.)

Girls' Trade Education League bulletins. No. 5. Dressmaking. No. 6. Millinery. No. 11. Clothing, Machine Operating. (Boston, 1911 and 1912).

Marshall, Florence M. Industrial Training for Women. Bulletin No. 4 of National Society for the Promotion of Industrial Education.

Richards, Charles R. Industrial training. A report on conditions in New York State in the Twenty-sixth Annual Report of the New York Bureau of Labor Statistics, 1908, Pt. I.

III. Studies from the vocational standpoint—Concluded.

- Talbert, Earnest L. Opportunities in School and Industry for Children of the Stockyards District. (University of Chicago, 1912.)
- United States Bureau of Education. A Trade School for Girls: A Preliminary Investigation in a Typical Manufacturing City, Worcester, Mass. Bulletin No. 17, 1913.
- United States Bureau of Labor Statistics. Conciliation, Arbitration, and Sanitation in the Dress and Waist Industry of New York City. Bulletin No. 145, 1914.
- ——— Vocational education survey of Richmond, Va. Bulletin No. 162, 1915.
- ——— Vocational education survey of Minneapolis, Minn. Bulletin No. 199, 1916.

IV. Government publications.

1. United States Government reports.
    - United States Census, 1860. Manufactures, lxii. Account of the Clothing Industry. (Historical development.)
    - United States Census, 1900. Manufactures, Pt. III, pp. 261-302; General discussion, pp. 261-296; Historical and descriptive—Men's clothing, pp. 296-300; Women's clothing, pp. 300-302.
    - Bureau of Labor Statistics. Wages and Regularity of Employment in the Dress and Waist Industry of New York City. Bulletin No. 146, 1914.
    - ——— Wages and Regularity of Employment in the Cloak, Suit, and Skirt Industry. Bulletin No. 147, 1914.
    - ——— Regularity of Employment in the Women's Ready-to-wear Garment Industry. Bulletin No. 183, 1916.
    - ——— Report on the Condition of Woman and Child Wage Earners in the United States. II. Men's Ready-made Clothing, 1911. IX. History of Women in Industry in the United States, 1910, Ch. III.
    - United States Public Health Service. The Health of Garment Workers. Bulletin No. 71, 1915.
2. State government reports.
    - Massachusetts.
        - Fifteenth Annual Report of the Bureau of Statistics of Labor, 1884. Wright, Carroll D. The Working Girls of Boston.
        - Minimum Wage Commission. Wages of Women in Women's Clothing Factories in Massachusetts. Bulletin No. 9, 1915.
        - Sixth Annual Report of the Bureau of Statistics of Labor, 1875. (Employment of Women at Sewing Machine Labor.)
    - New York.
        - New York Department of Labor. Report on the Growth of Industry in New York, 1902. (The clothing industry in New York, p. 88.)
        - Third Annual Report of the Bureau of Labor, 1885. Pt. I. Working women; their trades, wages, homes, and social conditions.
        - Twentieth Annual Report of the Bureau of Labor, 1902. Wages in the clothing trade, pp. 1-28. Earnings in home industries, pp. 37-289. (Men's and women's clothing and muslin and infants' wear.)
        - New York State Factory Investigating Commission Report. Wages in the Millinery Trade. 1914.

V. Recent periodical literature (only a few typical articles of the large popular literature on the clothing trade are suggested).

- Barrows, Alice P. Women at Work in Millinery Shops in New York City. (Preliminary report—The training of millinery workers.) Proceedings of Academy of Political Science. October, 1910.

V. Recent periodical literature—Concluded.

Clarke, Sue Ainslee, and Wyatt, Edith. Working girls' budgets. McClure's Magazine, October, November, 1910. ("Based on information obtained through an investigation conducted by the National Consumers' League.") November. The shirt-waist makers and their strike.

Goodman, Pearl, and Ueland, Elsa. The shirt-waist trade. Journal of Political Economy, December, 1910, Vol. XVIII, p. 816.

Hutchinson, Dr. Woods. The hygienic aspects of the shirt-waist strike. Survey, January 22, 1910, Vol. XXIII, p. 541.

Odencrantz, Louise. The irregularity of employment of women factory workers. Survey, Vol. XX [1909], p. 196.

Schwab, Sidney I. Neurasthenia among garment workers. American Labor Legislation Review, January, 1911, Vol. I, No. 1, p. 27.

Shirt-waist shops after the strike. Survey, October 1, 1910, Vol. XXV, p. 7.

Sumner, Mary Brown. Settlement of the cloak-makers' strike. Survey, September 17, 1910, Vol. XXIV, p. 847. (Protocol of September, 1910, in full.)

Van Kleeck, Mary. Women and children who make men's clothes. Survey, April 1, 1911, Vol. XXVI, p. 65.

Van Kleeck, Mary, and Barrows, Alice P. How girls learn the millinery trade. Survey, April 16, 1910, Vol. XXIV, p. 105.

VI. Source of material covered in Chapter I in a study of the evolution of the trade in the United States.

1. Newspapers.

Massachusetts—

Boston.

American Apollo, 1792–1794.

American Herald, December 8, 1781, October 8, 1789.

American Traveler, July 1, 1834, June 30, 1835, January 3–March 24, 1840.

Boston Chronicle, 1767–1770.

Boston Commercial Gazette, 1796–1799.

Boston Daily Advertiser, 1813.

Boston Exchange Advertiser, 1785.

Boston Evening Post, 1736–1742 (scattering numbers preserved in Boston Public Library), also 1743–1775.

Boston Gazette or Country Journal, 1755–1757, 1766, 1773–1776, 1797–1798.

Boston Gazette or Weekly Journal, July 23, 1722, September 25, 1744, also July 16 and August 20, 1745.

Boston Globe, 1910 and 1911.

Boston Mirror, 1808–1810.

Boston News Letter, 1719–1764.

Boston Weekly Post Boy, 1742, 1746–1754.

Bunker Hill Aurora and Boston Mirror, January 17, 1829, February 27, 1858, 1864, 1865.

Continental Journal and Weekly Advertiser, 1779–1781.

Evening Gazette, 1827, 1828.

Essex Journal and Merrimac Packet and The Massachusetts and New Hampshire General Advertiser, April 27, 1774.

Independent Advertiser, March, 1748–August, 1749.

Independent Chronicle, 1769–1792, 1800–1802, 1805, 1806.

Massachusetts Centinel, 1785.

Massachusetts Gazette and Boston Weekly News Letter, 1713–1776 (except for missing numbers, in Boston Public Library).

VI. Source of material covered in Chapter I in a study of the evolution of the trade in the United States—Continued.
  1. Newspapers—Concluded.
    Massachusetts—Concluded.
      Boston—Concluded.
        Massachusetts Gazette and Boston Post Boy and Advertiser, 1754, 1757-1775, May 23, 1768-September 21, 1769.
        New England Courant, February 4, 1723.
        New England Weekly Journal, 1728-1734.
        Weekly Rehearsal, June 26, 1732, February 5, 1733, and February 28, 1734.
      Essex.—Essex Gazette, 1770.
      Greenfield.—Greenfield Gazette, October 11, 1792.
      Hampden.—Hampden Federalist, November 16, 1815.
      Norfolk.—Norfolk Repository, 1805-1808.
      Northampton.—Hampshire Gazette, October 3, 1787; May 21, August 6, 27, September 3, 10, 1788; May 13, October 14, December 30, 1789; November 24, July 7, 28, 1790; November, 1815, 1816, 1823, 1828-1830.
      Salem.—Salem Gazette and Newbury and Marblehead Advertiser, 1774 (6 numbers), 1781-1785, 1790 (1 number), 1795.
      Springfield.—Hampshire Federalist, 1808-1810.
      Worcester.—National Aegis, December 2, 1801.
        Monthly.—The Lady's Magazine, conducted by Mrs. Sarah J. Hale, 1827, Boston.
    Connecticut—
      Hartford.
        American Mercury, 1784, 1785, 1788, 1789, 1791-1795, 1813.
        Connecticut Courant, 1764, 1776-1781, 1782, 1785, 1788-1792, 1793, 1794, 1795, 1796-1809.
      New Haven.—New Haven Gazette and Connecticut Magazine, 1786, 1787 (1 number each), 1788 (a few numbers).
      Norwich.—Norwich Packet, 1776, 1784, 1785, 1798 (incomplete set).
    New Hampshire.—New Hampshire Patriot, 1809-1811.
    Rhode Island.—Newport Mercury, June 23, 1761; April 26, 1773; August 7, September 25, 1775.
    Maryland.—Maryland Journal and Baltimore Adventurer, 1779, 1787, 1789-1792.
    New York.—New York Gazette, or Weekly Post Boy, 1740-1751, 1753, 1754, 1756-1759, 1765, 1766 (incomplete files).
    Pennsylvania—
      Philadelphia.
        American Weekly Mercury, December, 1719-January, 1723.
        Federal Gazette and Philadelphia Daily Advertiser, 1791-1793 (broken files from Library of Congress).
        Freeman's Journal, or the North American Intelligencer, 1781, 1782 (scattering numbers).
        Pennsylvania Gazette, 1734-1838 (broken files in Library of Congress).
        Pennsylvania Journal and the Weekly Advertiser 1752-1792 (scattering numbers).
        Philadelphia Mercantile Advertiser, 1809, 1810.

VI. Source of material covered in Chapter I in a study of the evolution of the trade in the United States—Continued.

2. Books, records, and documents.

American State Papers, Finance. Washington, 1789-1828.
Bliss, William R. Colonial Times on Buzzard's Bay. Boston, 1900.
Carey, Matthew. (Letter to the editor of the New York Daily Sentinel on remuneration of female labor.) Philadelphia, 1830.
——— Female Wages and Female Oppression. Philadelphia, 1830.
——— Miscellaneous Essays. Philadelphia, 1830.
Connecticut, Public records of the Colony of Connecticut. Hartford, 1852.
Coxe, Tench. A View of the United States of America (1787-1794). Philadelphia, 1794.
Documentary History of American Industrial Society, I and II. 1910.
Documents Relative to the Manufactures in the United States. H. Doc. 308, 22d Cong. 1st sess., Parts 1, 2. 1831, 1832.
Fernow, B. (editor). The records of New Amsterdam (1653-1674). New York, 1897.
Fithian, Philip Vickers. Journal and letters, 1764-1774. Princeton Historical Association, Princeton, 1900.
Goodwin, Maud W. Historic New York. Half Moon Papers. 1899.
Grant, Mrs. Anne. Memoirs of an American Lady, with Sketches of Manners and Scenery in America as they Existed Previous to the Revolution. New York, 1809.
Hammond, John. Leah and Rachel. London, 1656.
Harrower, John. Diary of. Virginia, 1773-1776 (American Historical Review, VI).
Hull, John. Diary of Public Occurrences. Transactions and collections of the American Antiquarian Society, III. Worcester.
Industry and Frugality Proposed as the Surest Means to Make us a Rich and Flourishing People. Boston, 1753.
Johnston, James, F. W. Notes on North America, Agricultural, Economic, and Social. Edinburgh and London, 1857.
Kemble, Frances Anne. Journal of a Residence on a Georgian Plantation. 1838-1839. New York, 1863.
Larcom, Lucy. A New England Girlhood. Boston, 1889.
——— Life, Letters, and Diary (Addison, Daniel D., editor). Boston, 1895.
Marshall, Christopher. Extracts from the Diary of (1774-1781, Duane, William, editor). Albany, 1877.
Martineau, Harriet. Society in America (1834-1836). London, 1837.
Massachusetts Bay Company Records. (1628-1641.) Cambridge, 1850.
Massachusetts Historical Society publications. 1798-1835.
New York Historical Society Collections. 1885.
Olmstead, Frederick Law. A Journey in the Seaboard Slave States, in the Years 1853, 1854. New York, London, 1904.
Pryor, Mrs. Roger A. Reminiscences of Peace and War. New York, 1905.
Russell, William Howard. My Diary, North and South. Boston, 1863.
Smyth, J. F. D. A Tour in the United States of America. London, 1784.
Thomas, Gabriel. An Account of Pennsylvania and West New Jersey. (Reprinted from the original edition of 1690.) Cleveland, 1903.

VI. Source of material covered in Chapter I in a study of the evolution of the trade in the United States—Concluded.

2. Books, records, and documents—Concluded.

Trollope, Mrs. Domestic Manners of the Americans. Fourth edition. London, New York, 1832.

Tuckerman, Joseph. Essay on the Wages Paid to Females for their Labor. Philadelphia, 1830.

Wansey, Henry. Journal of an Excursion to the United States. Salisbury and London, 1798.

Ward, Nathaniel. A Simple Cobbler of Aggawam in America. London 1647.

Winthrop's Journal, "History of New England," 1630-1649. New York, 1908.

Working Women's Protective Union, Annual reports of. New York, 1864 et seq.

Not Contemporary.

Bishop, John L. History of American Manufactures from 1608 to 1860. Philadelphia and London, 1866.

Bowne, Mrs. E. C. A Girl's Life Eighty Years Ago. New York, 1888.

Earle, Alice Morse. Two Centuries of Costume in America. New York, 1903.

——— Colonial Dames and Goodwives. Boston, 1895.

Temple, J. H., and Sheldon, G. History of Northfield. Albany, 1875.

Weeden, W. B. Economic and Social History of New England, 1620-1789. Boston and New York, 1890.

EUROPE.

Great Britain.

I. Government publications.

Home Department. Annual Reports of the Chief Inspector of Factories and Workshops.

Board of Trade, Labor Department. Collet, Clara E. Report on the Statistics of the Employment of Women and Girls. London, 1894.

British Sessional Papers. Factory and Workshop Commission.

Royal Commission on Labor—

The Employment of Women. Reports by Miss Eliza Orme, Miss Clara Collet, Miss May Abraham, and Miss Margaret Irwin. 1893 and 1894.

Oakeshott, Mrs. G. M. Women's Trades. Report of the Education Committee of the London County Council. 1908.

Reports of the British Association for the Advancement of Science.

II. Women's Industrial Council publications.

Clothing and Textile Trades. Summary tables by L. W. Papworth and D. M. Zimmern. London, 1912.

Home Industries of Women in London. 1908.

MacDonald, M. E. Working Women in Stuttgart. September, 1900.

Report of the National Conference on the Unemployment of Women Dependent on their Own Earnings. December, 1907.

Seasons Trades Conferences. March, 1901.

Trade School for Girls, January, 1911.

Treub-Cornaz, Mme. Women and the clothing industry in New Amsterdam. Women's Industrial News, September and December, 1901.

III. Published reports of investigations.

Cadbury, E., Matheson, M. C., and Shann, G. Women's Work and Wages. (Chicago, edited 1907.)

Meyer, Mrs. Carl, and Black, Clemintina. Makers of our Clothes: A Case for Trade Boards. London, 1909.

III. Published reports of investigations—Concluded.

Adler, N., and Tawney, R. H. Boy and Girl Labor. London, 1909.

Webb, Sydney and Beatrice. The Prevention of Destitution. London, 1911.

——— Seasonal Trades. London, 1912.

Scotland.

Irwin, Margaret. Home Work amongst Women. II. Minor Miscellaneous Trades. Report of an Inquiry Conducted for the Glasgow Council for Women's Trades. Glasgow, 1900.

——— The Problem of Home Work, with a preface by Professor George Adam Smith. Glasgow, 1907.

——— Women's Work in Tailoring and Dressmaking. Glasgow, 1900. Report of an Inquiry Conducted for the Scottish Council for Women's Trades.

IV. Publications relative to vocational guidance (Great Britain).

Fingerpost, The. A Guide to the Professions and Occupations of Educated Women. Third edition. London, 1909.

Occupations for Girls in Glasgow. Published by the Scottish Council for Women's Trades. Women's Industrial News. December, 1905.

Trades for London Girls and How to Enter Them. Compiled by the Apprenticeship and Skilled Employment Association. London and New York, 1909.

France.

I. Government publications.

Office du Travail. Enquête sur le travail à domicile dans l'industrie de la lingerie. Paris, 1907–1909.

——— Les associations professionnelles ouvrières. Paris, 1899–1904.

Legard, M. (Inspecteur Divisionnaire de la 10^e circonscription à Marseille). Reports by District Inspectors (of France) upon the Question of Nightwork. Paris, 1900. Investigation into Dressmaking Establishments in Marseille.

Office du Travail. La Petite Industrie. Vol. II. Le Vêtement à Paris. 1896.

II. Reports of International Bodies.

Bauer, E. Le travail de nuit des femmes dans l'industrie. Rapports publiés au nom de l'Association internationale pour la protection légale des travailleurs. 1903.

Storch, Léon. Rapport du Jury international de l'Exposition universelle internationale de 1900 à Paris. Paris, 1902.

III. Special treatises.

Aftalion, Albert. Le développement de la fabrique et le travail à domicile dans les industries de l'habillement (1906); also published in Revue d'économie politique, October, November, December, 1905. Vols. XIX, XX.

Benoist, Charles. Les ouvrières de l'aiguille à Paris. Paris, 1895.

Debect. L'habillement-femme en France au point de vue industriel et commercial. 1908.

Doublot, Camille. La protection légale des travailleurs de l'industrie du vêtement. Paris, 1899.

du Lac, Stanislaus. Le fil et l'aiguille. Paris.

Seilhac, Léon de. L'industrie de la couture et de la confection à Paris. Paris.

Worth, Gaston. La couture et la confection des vêtements de femme. 1895.

IV. Periodical literature.

Revue d'économie politique—

- Alfassa, Georges. Le travail de nuit des femmes, au Congrès de Cologne, 1903. Vol. XVII, p. 637. (Discussion of seasonal trades in general.)
- Schweidland, Eugen. Comment il est possible d'organiser les ouvrières en chambre. 1902. Vol. XVI, p. 659.

Réforme sociale—

- Aine. Les patronnes, employées et ouvrières de l'habillement à Paris; leur situation morale et matérielle, Vol. V, p. 61. January 1, 1898.

IV. Periodical literature—Concluded.
  Réforme sociale—Concluded.
    Hayem, Julien. L'industrie de la lingerie dans le centre de la France. November 1, 1909. Vol. 58, p. 529.
  Revue politique et parlementaire—
    Milhaud, Caroline. Enquête sur le travail à domicile dans la lingerie. 30 août 1908. Vol. 57, p. 366.
  Historical—
    Lespinasse, René de. Histoire générale de Paris. Les métiers et corporations de la ville de Paris. Vol. III. XIV-XVIII siècle tissus, etoffes, vêtements, etc.
    Leroy-Beaulieu, Paul. Le travail des femmes au XIX^{e} siècle. Paris, 1873.
    Levasseur, Pierre E. Histoire des classes ouvrières en France depuis la conquête de Jules César jusqu'à la Révolution. Paris, 1859.
    ——— Histoire des classes ouvrières et de l'industrie en France avant 1789. Paris, 1900–1.
  General works giving some attention to sewing trades—
    Gonnard, R. La femme dans l'industrie. Paris, 1906.
    Haussonville, Comte de. Salaires et misères des femmes. Fourth edition. Paris, 1900.
    Jay, Marthe. Le travail de nuit des femmes dans l'industrie française. 1908.
    Poisson, Charles. Le salaire des femmes. Saumur, 1906.
    Simon, Jules F. L'ouvrière. Paris, 1861.
    Weyl, Claude. La réglementation du travail des femmes dans l'industrie. (Loi du 2 novembre 1892.) Paris, 1898.
  Popular treatises—
    Dagan, Henri. La femme ouvrière. 1902.
    Milhaud, Caroline. L'ouvrière en France. Paris, 1907.
  Annales des Sciences Politiques—
    Alfassa, Georges. La crise de l'apprentissage (July, 1905). Vol. XX, p. 421.
    Allix, Edgard. L'industrie à domicile salariée (1904). Vol. XIX, p. 469.
  Economiste française—
    Leroy-Beaulieu, Paul. L'outillage et l'avenir de la petite industrie. 4 mars 1905.
    Payen, editor. Reglamentation du travail. (La Restriction, 1910. les Veilleés.) 26 Fevriere, 1910.
  Revue de Paris—
    Alfassa, Georges. Le travail de nuit des femmes. (15 septembre 1904.) Vol. V, p. 367.

Germany.

I. Schriften des Vereins für Sozialpolitik.
  Benda, Luise von. Die Entwicklung der Berliner Damenmassschneiderei. Vol. 85, pp. 53–69. (1899.)
  Dyhrenfurth, Gertrud. Die weibliche Heimarbeit. Jahrbuch für Nationalökonomie und Statistik. 3d series, Vol. 29, January, 1905. Also conducted an investigation in 1902 on the needleworkers in "Konfektion" in Berlin.
  Heiss, Cl., und A. Koppel. Heimarbeit und Hausindustrie in Deutschland, ihre Lohn und Arbeitsverhältnisse. 1906.
  Jaffé, E. Hausindustrie und Heimarbeit in Deutschland und Oesterreich. Vol. 86. (1899.)
  Lipszyc, Marie A. Die Betriebsformen der Berliner Damenmassschneiderei. Vol. 85, pp. 71–87. (1899.)

I. Schriften des Vereins für Sozialpolitik—Concluded.

Mayer, Gustav. Konfektion und Schneidergewerbe in Prenzlau. Vol. 65, pp. 119–144. (1895.)

Weber, Alfred. Die Entwicklungsgrundlagen der grossstädtischen Frauenhausindustrie. Vol. 85. (1899.)

II. Treatises.

Bauer, Professor Dr. Stephan. Die gewerbliche Nachtarbeit der Frauen. Jena, 1903.

Held, Jean. La réglamentation de la journée de travail des femmes dans l'industrie allemande. Paris, 1907.

Belgium.

Government publications.

Office du Travail. Les industries à domicile en Belgique. 7 vols. Brussels, 1899–1905.

INDEX.

A.

Page.

- Adrift, and living at home, proportion of workers classified as 79
- Age:
  - At beginning work 71
  - At time of entering the trade 156
  - Wages, classified weekly, and 136, 137

B.

- Boston and Worcester:
  - Specialization stage, shops of, maximum weekly wages of waist, skirt, and sleeve drapers in 40
  - Specialization stage, shops of, size of working force in 38
- Boston, Cambridge, Lowell, Somerville, and Worcester:
  - Commercialized shops, number and per cent of 31
  - Custom dressmaking, extent of 27
  - Dressmakers, types of 28
  - Dressmaking shops, number and type of, by length of working year 92
  - Private dressmakers, number and per cent of 31
  - Private dressmakers, size of working force 32
  - Specialization stage, shops of, number and per cent of 31
  - Transition stage, shops of, maximum weekly wages of skirt and waist drapers in 36
  - Transition stage, shops of, number and per cent of 31
  - Transition stage, shops of, size of working force 35
- Boston, custom shops and manufacturing shops in:
  - Children, women, and men, number employed 128
  - Children, women, and men, wages of 129
  - Fall and spring seasons, dates of opening and closing 100
  - Midwinter lay off, number of weeks of 102
  - Midwinter slack season, relation to unemployment 102
  - Piecework, classified weekly wages of women on 130
  - Stability of labor force 99
  - Workers employed in, average number 87, 89
- Business administration in the trade 53, 54

C.

- Capital, problem of, in the trade 54-64
- Casual labor, extent of, in custom and factory dressmaking 106
- Children, women, and men in:
  - Custom shops and manufacturing shops, classified weekly wages paid, Boston 129
  - Custom shops and manufacturing shops, number employed and wages paid, United States 23, 127
  - Custom shops and manufacturing shops, number employed, Boston 128
  - Custom shops dressmaking, average number employed, by months, United States, 1900 93
- Commercial dressmaker, the 42-49
- Commercialized shops:
  - Boston, Cambridge, Lowell, Somerville, and Worcester, number and per cent of 31
  - Occupations and wages (1 shop) 44, 45
  - Wages paid in, by size of force 45
  - Working year, length of 91, 92
- Competition, problem of, in the trade 61-64
- Custom shops and manufacturing shops:
  - Children, women, and men, number, wages, etc., of, in 127-129
  - Employment in, classified number of weeks of 98
  - Labor force, stability of, for 1 year, Boston 99
  - Large and small shops, wages of women in 132
  - Midwinter lay off, number of weeks of, Boston 102
  - Midwinter slack season, relation to unemployment, Boston 102
  - Occupations and wages 67, 134-136
  - Spring and fall seasons, dates of opening and closing, Boston 100
  - Wages of workers employed 25 or more weeks in 1 shop 140
  - Wages, reduction of, caused by short absences 141
  - Women working 40 weeks and over, classified annual earnings of 142
  - Workers employed in, average number, by months, Boston 87
  - Workers employed in, number of, by weeks, Boston 89
  - Working year of employees in, Boston 95
- Custom shops:
  - Absences, short, proportion of weeks not broken by 140
  - Boston, Cambridge, Lowell, Somerville, and Worcester, number, etc 27, 28
  - Occupations and wages of nucleus force in 67
  - Vacation, summer, proportion of workers who return after 105
  - Wages, classified weekly, by occupation 134
  - Workers employed in, average number of, Boston, 1910, and United States, 1900 85
  - Workers employed in, number of, in different years, by weeks 96, 97

D.

Page.

- Dressmaking, evolution of the trade, United States 11-21
  - Commercialized system 11,13
  - Custom system 11,13,20
  - Family system 11,12
  - Help or hire system 11-13
  - Manufacturing system 11,17
  - Ready-made and ready-to-wear garments, development of 18,19
- Dressmaking trade of to-day 23-52
  - Commercial dressmaker 42-49
  - Family dressmaker 29
  - Journeyman dressmaker 29,30
  - Manufacturing dressmaker 49-52
  - Private dressmaker 31-33
  - Specialized workers, dressmaker of the shop of 37-42
  - Transition stage, dressmaker of 33-37

E.

- Earnings and wages in Boston 127-146
- Earnings. (*See also* Wages.)
- Employees. (*See* Workers in the dressmaking trade.)
- Employments, secondary, reported by workers 144
- Experience or number of years in the trade, workers classified by 110
- Experience, relation of, to weekly wages 138

F.

- Factory product, women's clothing, development of the trade, United States, 1890-1900 and 1899-1909. 23,24
- Fall and spring seasons, dates of opening and closing, Boston 100
- Family dressmaker, the 29
- Family income, contributions to, extent of by workers living at home 78

I.

- Income. (*See* Family income; Earnings; Wages.)
- Industrial conditions in the trade 53-81
  - Business administration 53,54
  - Capital, problem of 54-61
  - Competition, problem of 61-64
  - Labor force 64-81
  - Unions, attitude of workers toward 79-81
- Irregularity of employment 83-111
  - Weeks of 6 days each, proportion of, worked 139
  - Weeks not broken by short absences, proportion of 140

J.

- Journeyman dressmaker, the 29,30

L.

- Labor force 64-81
- Labor force, instability of 106-111
- Lay off, midwinter, number of weeks of, Boston 102
- List of books, records, and periodicals dealing with women in the clothing trade 167-175
- Living conditions of 200 workers visited 77
- Lowell. (*See* Boston, Cambridge, Lowell, Somerville and Worcester.)

M.

- Manufacturing shops and custom shops:
  - Children, women, and men, number, wages, etc., of, in 127-129
  - Employment in, classified number of weeks of 98
  - Labor force, stability of, for 1 year, Boston 99
  - Large and small shops, wages of women in 132
  - Midwinter lay off, number of weeks of, Boston 102
  - Midwinter slack season, relation to unemployment, Boston 102
  - Occupation and wages 67, 134-136
  - Spring and fall seasons, dates of opening and closing, Boston 100
  - Wages of workers employed 25 or more weeks in 1 shop 140
  - Wages, reduction of, caused by short absences 141
  - Women working 40 weeks and over, classified annual earnings of 142
  - Workers employed in, average number, by months, Boston 87
  - Workers employed in, number of, by weeks, Boston 89
  - Working year of employees in, Boston 95
- Manufacturing shops, classified weekly wages and occupations in 135, 136
- Married women, proportion of, in custom shops and manufacturing shops 78

N.

- Nationality, a factor in advancement 75

O.

Page.

- Occupations and wages:
  - Commercialized shops, 44, 45
  - Custom shops, 67, 134
  - Manufacturing shops, 135, 136
  - Specialization stage, shops of, 38, 39
  - Transition stage, shops of, 34, 35
  - Workers employed 39 or more weeks in 1 shop, 139
- Occupations. (*See also* Secondary employments.)
- Overtime, 113–126
  - Causes of, primary, 114
  - Hours of, in a large shop, two consecutive years, 119, 120
  - Hours of, in a large shop, 1909–10 and 1910–11 (Chart C), 121
  - Hours of, in 1 shop, in a week of maximum overtime, 1909, 118
  - Pay for, rate of, 123

P.

- Piecework, wages of women on, Boston, 130
- Positions, methods of securing, 65
- Positions, reasons given for leaving, 107
- Previous employment of women, 72
- Private dressmaker, the, 31–33
- Private dressmakers, shops of, number of, and size of working force, in 5 cities, 31, 32
- Private dressmakers, shops of, length of working year, 91, 92

R.

- Ready-made and ready-to-wear garments, development of, 18–20

S.

- Schooling of 200 workers in the dressmaking trade, 74
- Scope of present study, 8, 9
- Season, the workers', 93–106
- Seasons in the trade, 83–93
- Slack season, midwinter, relation to unemployment, Boston, 102
- Somerville. (*See* Boston, Cambridge, Lowell, Somerville, and Worcester.)
- Specialization stage, shops of:
  - Boston and Worcester, size of working force in, 38
  - Boston, Cambridge, Lowell, Somerville, and Worcester, number in, 31
  - Occupations and wages, 38, 39
  - Working year in, 91, 92
  - Wages of waist, skirt, and sleeve drapers, Boston and Worcester, 40
- Specialized workers, the dressmaker of the shop of, 37–42
- Spring and fall seasons, dates of opening and closing, Boston, 100

T.

- Teaching the trade, 147–159
- Transition stage, shops of:
  - Boston, Cambridge, Lowell, Somerville, and Worcester, number in, 31
  - Occupations and wages, 34, 35
  - Wages, maximum weekly, of skirt and waist drapers, Boston and smaller cities, 36
  - Working force, size of, in 5 cities, 35
  - Working year, length of, 91, 92
- Transition stage, the dressmaker of the, 33–37

U.

- Unions, attitude toward, of women workers, 79

V.

- Vacation, midsummer, proportion of workers returning in the fall after, 105

W.

- Wages:
  - Actual average and nominal, of workers employed 25 weeks or more in 1 shop, 140
  - Annual, of women working 40 weeks and over, 142, 143
  - Children, men, and women in custom shops and manufacturing shops, 127, 129
  - Class of $7, $8, and $9 per week, time required to reach, 157
  - Earnings and, in Boston, 127–146
  - Experience, relation of wages to, 138
  - Occupations and, in commercialized shops, 44, 45
  - Occupations and, in custom shops, 67, 134
  - Occupations and, in manufacturing shops, 135, 136
  - Occupations and, in shops of specialization stage, 38–40
  - Occupations and, in shops of transition stage, 34–36
  - Occupations, etc., and, of workers employed 39 or more weeks in 1 shop, 139
  - Paid and owed a $10 draper in a specified shop, 60, 61
  - Piecework, of women on, Boston, 130
  - Reduction, percentage of, caused by short absences, 141
  - Women in large and small shops, 132
  - Workers earning less than $8 per week, proportion of, in large and small shops, 133

Page.
Workers in the dressmaking trade:
  Adrift and living at home, proportion of, classified as........ 79
  Age, and classified weekly wages........ 136, 137
  Age at beginning work........ 71
  Age at time of entering the trade........ 156
  Custom shops, fluctuation of working force, by months (Charts A and B)........ 86, 87
  Employment, number of weeks of, custom shops and manufacturing shops........ 98, 100
  Experience or number of years in the trade of, and number of shops employed in........ 110
  Experience, relation of, to weekly wages........ 138
  Factory workers classified, weekly wages of, by occupations........ 135, 136
  Family income, contributions to, extent of, by workers living at home........ 78
  Lay off, midwinter, number of weeks of, Boston........ 102
  Living conditions of 200 visited........ 77
  Married women, proportion of, in custom shops and manufacturing shops........ 78
  Overtime, hours of........ 118-120
  Overtime in a large shop, specified years (Chart C)........ 121
  Pieceworkers, classified weekly wages of, in 2 manufacturing shops, Boston........ 130
  Positions, methods of securing........ 65
  Positions, reasons given for leaving........ 107
  Previous employment of women in........ 72
  Schooling of 200 workers........ 74
  Seasons, spring and fall, dates of opening and closing, Boston........ 100
  Secondary employments........ 144
  Unions, attitude toward........ 79
  Vacation, midsummer, proportion of workers returning in the fall after........ 105
  Working season, in different years........ 98
  Working year, number of weeks in........ 95

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . WHOLE NUMBER 215
WOMEN IN INDUSTRY SERIES: NO. 10

INDUSTRIAL EXPERIENCE OF TRADE-SCHOOL GIRLS IN MASSACHUSETTS

OCTOBER, 1917

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
25 CENTS PER COPY

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . WHOLE NUMBER 215

WOMEN IN INDUSTRY SERIES: NO. 10

INDUSTRIAL EXPERIENCE OF TRADE-SCHOOL GIRLS IN MASSACHUSETTS

OCTOBER, 1917

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
25 CENTS PER COPY

CONTENTS.

Page.

- Chapter I.—Introduction 7–13
  - Problem of trade training for girls 7, 8
  - Growth of trade schools for girls in Massachusetts 8, 9
  - New questions involved in industrial education 9, 10
  - Methods and scope of this survey 10–13
- Chapter II.—The school problem 15–66
  - The school 15–22
    - Growth of enrollment in trade schools 15, 16
    - Noncompetitive character of trade and ordinary schools 16–18
    - Courses offered in the different trade schools 18–20
    - Relative demand for the different courses 20–22
  - The pupils and the school 22–65
    - Age and previous schooling of pupils entering the trade schools 22–26
    - Degree to which trade training is utilized 26, 27
    - Relation of age at leaving school to utilization of trade training 27–30
    - Relation between amount of previous schooling and tendency to enter trade for which trained 30–34
    - Relation between length of trade-school course and use of trade training 34–41
      - Time actually spent in trade school 35–38
      - Distribution, by length of trade training, of girls using their trades 38–41
    - Placement by Boston Trade School 41–44
    - Reasons for leaving trade schools 44–46
    - Prevailing misconceptions of scope of trade-school work 46–48
    - Adjustment of trade-school pupils to the trade 48–55
    - School tests for ascertaining trade ability 55–58
    - Special methods for adapting pupils to trade demands 58–60
    - Stability of trade-school girls in trade positions 60–63
    - Cooperation between trade school and employers 63, 64
    - Methods by which trade-school pupils secure positions 64, 65
  - Summary 65, 66
- Chapter III.—Industrial experience of Boston trade-school girls 67–96
  - Difficulty of determining effectiveness of trade-school training 67–69
  - Statistical basis of study of industrial experience 69–72
    - Age and length of working experience of Boston Trade School girls studied 70–72
  - Girls who did not use the trade for which they were trained 72–75
  - Girls who used the trade for which they were trained 75–95
    - Stability in industry 75–78
      - Sifting-out process in school 75–77
      - Industrial distribution at end of specified periods out of trade school 77, 78
    - Stability in trade for which trained 78–90
      - Age in relation to permanence in trade 84, 85
      - Shifting of individual trade-school girls 85–88
      - Movement of trade-school girls from one trade to another, or from one position to another 88–90
    - Secondary employments 90–93
    - Reasons for leaving primary trade 93–95
  - Summary 95, 96

Page.

Chapter IV.—Wages of Boston Trade School Girls ... 97–147

- Introduction ... 97, 98
  - Reasons for studying wages ... 97
  - Real versus nominal wages ... 97, 98
  - Difficulty of securing data ... 98
- Average weekly wages in successive years ... 98–106
  - Girls remaining in trade for which trained and those leaving it for other occupations ... 99, 100
  - Girls who never used trade for which trained ... 100, 101
  - Time required by different groups to reach $8 a week ... 101
  - Rate of advance in different groups ... 101, 102
  - Relation of wages of individual workers to average wage ... 102, 103
  - Average wages of trade-trained workers ... 103–105
  - Average wages of trade-school girls compared with those of trade-trained workers ... 105, 106
- Classified weekly wages in successive years in sewing trades ... 107–113
- Initial wage of the trade-school girl ... 114–116
  - Policy of school in respect to initial wage ... 114
  - Initial wage for two five-year periods ... 114, 115
  - Rate of wage advanced compared with initial wage ... 115, 116
- Wages and occupations of trade-school girls at specified periods in their working experience ... 117–127
  - Girls remaining in trade for which trained and those leaving it for other occupations ... 117–123
  - Girls never using trade for which trained ... 124
  - Comparative wages of trade-school and trade-trained dressmakers and factory sewers at specified periods ... 124–127
- Factors determining wage advancement ... 127–142
  - Length of working experience ... 127–133
  - Age at beginning work ... 133–138
    - Effect on wages of trade-school girls ... 133–136
    - Effect on wages of trade-trained girls ... 136–138
  - Academic education ... 138–142
    - Wages of trade-school dressmakers, classified according to previous schooling ... 138–141
    - Wages of trade-trained dressmakers, classified according to previous schooling ... 141, 142
- Wages and length of working season ... 143–146
  - Length of season, by trades, for 533 trade-school girls ... 143–145
  - Wages of trade-school girls trained for sewing trades, classified according to length of working season and trades ... 145, 146
- Summary ... 146, 147

Chapter V.—Industrial experience and wages of Worcester and Cambridge trade-school girls ... 149–172

- Worcester Girls' Trade School ... 149–165
  - Age and industrial distribution of girls studied ... 149, 150
  - Employment in successive years ... 150–153
  - Length of working experience and employment ... 153, 154
  - Age and employment ... 154
  - Reasons for not using trade ... 154, 155
  - Average wages at specified periods ... 155–157
  - Classified wages at specified periods ... 157
  - Wages and occupations at specified periods ... 157–160

Chapter V.—Industrial experience and wages of Worcester and Cambridge trade-school girls—Concluded.

Worcester Girls' Trade School—Concluded.

Page.

- Factors affecting wages 160–163
  - Length of working experience 160–162
  - Age at beginning work 162
  - Academic and trade-school training 162, 163
- Wages and length of working season 163–165

Trade-trained sewing girls in Worcester 165–168

Cambridge Girls' Trade School 169–171

- Age, industrial distribution, and wages of girls studied 169–171

Summary 171, 172

Chapter VI.—The girl who has been trained in the trade school 173–194

- Location in regard to school 173–176
  - Area from which Boston Trade School girls are drawn 173, 174
  - Distance from school and persistence in attendance 174, 175
  - Distance from school and use of trade 175, 176
- Nativity of trade-school girls 176–181
- Economic status of families of trade-school girls 182–188
  - Occupations of fathers of trade-school girls 182–184
  - Girls employed during interval between grammar-school and trade-school attendance 184–186
  - Age at beginning work 186–188
- Family condition of trade-school girls 188, 189
- Contribution to family income 189–192
- Marriage as an interruption to working career 192, 193
- Summary 193, 194

Chapter VII.—Industries for which trade schools train 195–233

- Basis of trade training 195
- Women's clothing trades 195–199
  - Decrease in number of custom workers 196, 197
  - Decrease in proportion of young workers employed 197–199
- Custom sewing trades 200–210
  - Evolution of custom dressmaking 200–205
    - Attitude of employers toward beginners 201, 202
    - Attitude of employers toward trade schools and trade-school girls 202–205
  - Evolution of the millinery trade 205–209
    - Growth of factory and decrease of custom work 205–208
    - Attitude of employers toward trade-school girls 208, 209
  - Summary of effect of changes in custom sewing trades upon opportunities for trade-school girls 209, 210
- Power machine sewing trades 210–233
  - Need of training for these trades 211–213
  - Extent and character of these trades in Boston and Worcester 213, 214
  - Analysis of characteristics of production in factories making light-weight products 214–217
  - Opportunities and requirements in different branches of these trades 217–230
    - Dresses and waists 217–221
    - Neckwear 221, 222
    - Children's dresses 222, 223
    - Underwear 223–225
    - Shirts 225
    - Aprons and rompers 226
    - Curtains 227
    - Skirts 227, 228
    - Straw hats 229, 230

Page.

Chapter IV.—Wages of Boston Trade School Girls 97-147
- Introduction 97, 98
  - Reasons for studying wages 97
  - Real versus nominal wages 97, 98
  - Difficulty of securing data 98
- Average weekly wages in successive years 98-106
  - Girls remaining in trade for which trained and those leaving it for other occupations 99, 100
  - Girls who never used trade for which trained 100, 101
  - Time required by different groups to reach $8 a week 101
  - Rate of advance in different groups 101, 102
  - Relation of wages of individual workers to average wage 102, 103
  - Average wages of trade-trained workers 103-105
  - Average wages of trade-school girls compared with those of trade-trained workers 105, 106
- Classified weekly wages in successive years in sewing trades 107-113
- Initial wage of the trade-school girl 114-116
  - Policy of school in respect to initial wage 114
  - Initial wage for two five-year periods 114, 115
  - Rate of wage advanced compared with initial wage 115, 116
- Wages and occupations of trade-school girls at specified periods in their working experience 117-127
  - Girls remaining in trade for which trained and those leaving it for other occupations 117-123
  - Girls never using trade for which trained 124
  - Comparative wages of trade-school and trade-trained dressmakers and factory sewers at specified periods 124-127
- Factors determining wage advancement 127-142
  - Length of working experience 127-133
  - Age at beginning work 133-138
    - Effect on wages of trade-school girls 133-136
    - Effect on wages of trade-trained girls 136-138
  - Academic education 138-142
    - Wages of trade-school dressmakers, classified according to previous schooling 138-141
    - Wages of trade-trained dressmakers, classified according to previous schooling 141, 142
- Wages and length of working season 143-146
  - Length of season, by trades, for 533 trade-school girls 143-145
  - Wages of trade-school girls trained for sewing trades, classified according to length of working season and trades 145, 146
- Summary 146, 147

Chapter V.—Industrial experience and wages of Worcester and Cambridge trade-school girls 149-172
- Worcester Girls' Trade School 149-165
  - Age and industrial distribution of girls studied 149, 150
  - Employment in successive years 150-153
  - Length of working experience and employment 153, 154
  - Age and employment 154
  - Reasons for not using trade 154, 155
  - Average wages at specified periods 155-157
  - Classified wages at specified periods 157
  - Wages and occupations at specified periods 157-160

Chapter V.—Industrial experience and wages of Worcester and Cambridge trade-school girls—Concluded.

Worcester Girls' Trade School—Concluded.

Page.
Factors affecting wages 160–163
Length of working experience 160–162
Age at beginning work 162
Academic and trade-school training 162, 163
Wages and length of working season 163–165
Trade-trained sewing girls in Worcester 165–168
Cambridge Girls' Trade School 169–171
Age, industrial distribution, and wages of girls studied 169–171
Summary 171, 172
Chapter VI.—The girl who has been trained in the trade school 173–194
Location in regard to school 173–176
Area from which Boston Trade School girls are drawn 173, 174
Distance from school and persistence in attendance 174, 175
Distance from school and use of trade 175, 176
Nativity of trade-school girls 176–181
Economic status of families of trade-school girls 182–188
Occupations of fathers of trade-school girls 182–184
Girls employed during interval between grammar-school and trade-school attendance 184–186
Age at beginning work 186–188
Family condition of trade-school girls 188, 189
Contribution to family income 189–192
Marriage as an interruption to working career 192, 193
Summary 193, 194
Chapter VII.—Industries for which trade schools train 195–233
Basis of trade training 195
Women's clothing trades 195–199
Decrease in number of custom workers 196, 197
Decrease in proportion of young workers employed 197–199
Custom sewing trades 200–210
Evolution of custom dressmaking 200–205
Attitude of employers toward beginners 201, 202
Attitude of employers toward trade schools and trade-school girls 202–205
Evolution of the millinery trade 205–209
Growth of factory and decrease of custom work 205–208
Attitude of employers toward trade-school girls 208, 209
Summary of effect of changes in custom sewing trades upon opportunities for trade-school girls 209, 210
Power machine sewing trades 210–233
Need of training for these trades 211–213
Extent and character of these trades in Boston and Worcester 213, 214
Analysis of characteristics of production in factories making light-weight products 214–217
Opportunities and requirements in different branches of these trades 217–230
Dresses and waists 217–221
Neckwear 221, 222
Children's dresses 222, 223
Underwear 223–225
Shirts 225
Aprons and rompers 226
Curtains 227
Skirts 227, 228
Straw hats 229, 230

Workers in the dressmaking trade: Page.
- Adrift and living at home, proportion of, classified as........ 79
- Age, and classified weekly wages........ 136, 137
- Age at beginning work........ 71
- Age at time of entering the trade........ 158
- Custom shops, fluctuation of working force, by months (Charts A and B)........ 86, 87
- Employment, number of weeks of, custom shops and manufacturing shops........ 98, 100
- Experience or number of years in the trade of, and number of shops employed in........ 110
- Experience, relation of, to weekly wages........ 138
- Factory workers classified, weekly wages of, by occupations........ 135, 136
- Family income, contributions to, extent of, by workers living at home........ 78
- Lay off, midwinter, number of weeks of, Boston........ 102
- Living conditions of 200 visited........ 77
- Married women, proportion of, in custom shops and manufacturing shops........ 78
- Overtime, hours of........ 118–120
- Overtime in a large shop, specified years (Chart C)........ 121
- Pieceworkers, classified weekly wages of, in 2 manufacturing shops, Boston........ 130
- Positions, methods of securing........ 65
- Positions, reasons given for leaving........ 107
- Previous employment of women in........ 72
- Schooling of 200 workers........ 74
- Seasons, spring and fall, dates of opening and closing, Boston........ 100
- Secondary employments........ 144
- Unions, attitude toward........ 79
- Vacation, midsummer, proportion of workers returning in the fall after........ 105
- Working season, in different years........ 98
- Working year, number of weeks in........ 95

○

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES } . . . { WHOLE
BUREAU OF LABOR STATISTICS } . . . { NUMBER 215

WOMEN IN INDUSTRY SERIES: NO. 10

INDUSTRIAL EXPERIENCE OF TRADE-SCHOOL GIRLS IN MASSACHUSETTS

[illegible]

[illegible]

[illegible]

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
25 CENTS PER COPY

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . WHOLE NUMBER 215
WOMEN IN INDUSTRY SERIES: NO. 10

INDUSTRIAL EXPERIENCE OF TRADE-SCHOOL GIRLS IN MASSACHUSETTS

OCTOBER, 1917

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
25 CENTS PER COPY

CONTENTS.

Page.

- **Chapter I.—Introduction** 7–13
  - Problem of trade training for girls 7, 8
  - Growth of trade schools for girls in Massachusetts 8, 9
  - New questions involved in industrial education 9, 10
  - Methods and scope of this survey 10–13
- **Chapter II.—The school problem** 15–66
  - The school 15–22
    - Growth of enrollment in trade schools 15, 16
    - Noncompetitive character of trade and ordinary schools 16–18
    - Courses offered in the different trade schools 18–20
    - Relative demand for the different courses 20–22
  - The pupils and the school 22–65
    - Age and previous schooling of pupils entering the trade schools 22–26
    - Degree to which trade training is utilized 26, 27
    - Relation of age at leaving school to utilization of trade training 27–30
    - Relation between amount of previous schooling and tendency to enter trade for which trained 30–34
    - Relation between length of trade-school course and use of trade training 34–41
      - Time actually spent in trade school 35–38
      - Distribution, by length of trade training, of girls using their trades 38–41
    - Placement by Boston Trade School 41–44
    - Reasons for leaving trade schools 44–46
    - Prevailing misconceptions of scope of trade-school work 46–48
    - Adjustment of trade-school pupils to the trade 48–55
    - School tests for ascertaining trade ability 55–58
    - Special methods for adapting pupils to trade demands 58–60
    - Stability of trade-school girls in trade positions 60–63
    - Cooperation between trade school and employers 63, 64
    - Methods by which trade-school pupils secure positions 64, 65
  - Summary 65, 66
- **Chapter III.—Industrial experience of Boston trade-school girls** 67–96
  - Difficulty of determining effectiveness of trade-school training 67–69
  - Statistical basis of study of industrial experience 69–72
    - Age and length of working experience of Boston Trade School girls studied 70–72
  - Girls who did not use the trade for which they were trained 72–75
  - Girls who used the trade for which they were trained 75–95
    - Stability in industry 75–78
      - Sifting-out process in school 75–77
      - Industrial distribution at end of specified periods out of trade school 77, 78
    - Stability in trade for which trained 78–90
      - Age in relation to permanence in trade 84, 85
      - Shifting of individual trade-school girls 85–88
      - Movement of trade-school girls from one trade to another, or from one position to another 88–90
    - Secondary employments 90–93
    - Reasons for leaving primary trade 93–95
  - Summary 95, 96

Page.

- **Chapter IV.—Wages of Boston Trade School Girls** 97-147
  - Introduction 97, 98
    - Reasons for studying wages 97
    - Real versus nominal wages 97, 98
    - Difficulty of securing data 98
  - Average weekly wages in successive years 98-106
    - Girls remaining in trade for which trained and those leaving it for other occupations 99, 100
    - Girls who never used trade for which trained 100, 101
    - Time required by different groups to reach $8 a week 101
    - Rate of advance in different groups 101, 102
    - Relation of wages of individual workers to average wage 102, 103
    - Average wages of trade-trained workers 103-105
    - Average wages of trade-school girls compared with those of trade-trained workers 105, 106
  - Classified weekly wages in successive years in sewing trades 107-113
  - Initial wage of the trade-school girl 114-116
    - Policy of school in respect to initial wage 114
    - Initial wage for two five-year periods 114, 115
    - Rate of wage advanced compared with initial wage 115, 116
  - Wages and occupations of trade-school girls at specified periods in their working experience 117-127
    - Girls remaining in trade for which trained and those leaving it for other occupations 117-123
    - Girls never using trade for which trained 124
    - Comparative wages of trade-school and trade-trained dressmakers and factory sewers at specified periods 124-127
  - Factors determining wage advancement 127-142
    - Length of working experience 127-133
    - Age at beginning work 133-138
      - Effect on wages of trade-school girls 133-136
      - Effect on wages of trade-trained girls 136-138
    - Academic education 138-142
      - Wages of trade-school dressmakers, classified according to previous schooling 138-141
      - Wages of trade-trained dressmakers, classified according to previous schooling 141, 142
  - Wages and length of working season 143-146
    - Length of season, by trades, for 533 trade-school girls 143-145
    - Wages of trade-school girls trained for sewing trades, classified according to length of working season and trades 145, 146
  - Summary 146, 147
- **Chapter V.—Industrial experience and wages of Worcester and Cambridge trade-school girls** 149-172
  - Worcester Girls' Trade School 149-165
    - Age and industrial distribution of girls studied 149, 150
    - Employment in successive years 150-153
    - Length of working experience and employment 153, 154
    - Age and employment 154
    - Reasons for not using trade 154, 155
    - Average wages at specified periods 155-157
    - Classified wages at specified periods 157
    - Wages and occupations at specified periods 157-160

Chapter V.—Industrial experience and wages of Worcester and Cambridge trade-school girls—Concluded.
Worcester Girls' Trade School—Concluded. Page.
Factors affecting wages.......... 160–163
Length of working experience.......... 160–162
Age at beginning work.......... 162
Academic and trade-school training.......... 162, 163
Wages and length of working season.......... 163–165
Trade-trained sewing girls in Worcester.......... 165–168
Cambridge Girls' Trade School.......... 169–171
Age, industrial distribution, and wages of girls studied.......... 169–171
Summary.......... 171, 172
Chapter VI.—The girl who has been trained in the trade school.......... 173–194
Location in regard to school.......... 173–176
Area from which Boston Trade School girls are drawn.......... 173, 174
Distance from school and persistence in attendance.......... 174, 175
Distance from school and use of trade.......... 175, 176
Nativity of trade-school girls.......... 176–181
Economic status of families of trade-school girls.......... 182–188
Occupations of fathers of trade-school girls.......... 182–184
Girls employed during interval between grammar-school and trade-school attendance.......... 184–186
Age at beginning work.......... 186–188
Family condition of trade-school girls.......... 188, 189
Contribution to family income.......... 189–192
Marriage as an interruption to working career.......... 192, 193
Summary.......... 193, 194
Chapter VII.—Industries for which trade schools train.......... 195–233
Basis of trade training.......... 195
Women's clothing trades.......... 195–199
Decrease in number of custom workers.......... 196, 197
Decrease in proportion of young workers employed.......... 197–199
Custom sewing trades.......... 200–210
Evolution of custom dressmaking.......... 200–205
Attitude of employers toward beginners.......... 201, 202
Attitude of employers toward trade schools and trade-school girls 202–205
Evolution of the millinery trade.......... 205–209
Growth of factory and decrease of custom work.......... 205–208
Attitude of employers toward trade-school girls.......... 208, 209
Summary of effect of changes in custom sewing trades upon opportunities for trade-school girls.......... 209, 210
Power machine sewing trades.......... 210–233
Need of training for these trades.......... 211–213
Extent and character of these trades in Boston and Worcester.......... 213, 214
Analysis of characteristics of production in factories making light-weight products.......... 214–217
Opportunities and requirements in different branches of these trades 217–230
Dresses and waists.......... 217–221
Neckwear.......... 221, 222
Children's dresses.......... 222, 223
Underwear.......... 223–225
Shirts.......... 225
Aprons and rompers.......... 226
Curtains.......... 227
Skirts.......... 227, 228
Straw hats.......... 229, 230

Chapter VII.—Industries for which trade schools train—Concluded.

Power machine sewing trades—Concluded.

Page.
Methods of learning in the trades 230, 231
Cost of teaching in the factory 231, 232
Amount of shifting among factory employees 232, 233
Summary 233
Chapter VIII.—Summary and conclusions 235–242
Appendix A.—Courses and administration of the trade schools for girls in Massachusetts 243–256
Courses in the trade schools 243–246
Courses of departments in the Worcester Trade School 246–253
Dressmaking 247, 248
Power-machine operating 248, 249
Millinery 249, 250
Trade cooking 250
Academic, art, cooking (general) courses, and physical education ... 250–253
Administration of girls' trade schools 253–256
Appendix B.—Evening industrial schools for girls 257–269

This study was undertaken in September, 1914, by the Department of Research of the Women's Educational and Industrial Union of Boston, under the direction of Dr. May Allinson, associate director, and with the advice and criticism of Dr. Susan M. Kingsbury, director of the department. The study covered a period of eleven months, seven months being devoted to field work and four months to writing the report. Three fellows, Louise Moore, Edith Gray, and Cora Parkhurst, with two secretaries in the office, constituted the working force. Special recognition should be given Louise Moore for her independent work in planning and presenting the material in Chapter II on The school problem, her analyses of the machine-operating trades (pp. 210 to 233), and for Appendixes A and B.

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 215. WASHINGTON. OCTOBER, 1917.

INDUSTRIAL EXPERIENCE OF TRADE-SCHOOL GIRLS IN MASSACHUSETTS.

CHAPTER I.—INTRODUCTION.

PROBLEM OF TRADE TRAINING FOR GIRLS.

Trade training for girls has proved to be one of the most difficult problems of present-day education. Federal, State, and private reports on industrial conditions under which women work show the need for some kind of more adequate preparation for life.[1] With an appreciation of the significance of these conditions has come a new conception of education: a realization, first, that some sort of education must be developed for those girls who can not be profited by existing forms and, second, that teaching for trades must be undertaken by educators in cooperation with employers.

Naturally, conflicting theories have arisen as to where, when, and how this trade training can best be given. First, some educators and employers insist that it can and should be given only in the factory.[2] Second, some maintain that systematic training can be given only in special trade schools, because training and production on a profit basis are incompatible.[3] Third, others are still debating as to whether this trade training can best be given preliminary to

---

[1] Massachusetts. Report of the Commission on Industrial and Technical Education. April, 1906.

National Society for the Promotion of Industrial Education. Reports and bulletins.

United States Bureau of Education, A trade school for girls, Bulletin, 1913, No. 17.

United States Bureau of Labor Statistics publications:

- Bul. No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. Appendix I—A study of the dress and waist industry for the purpose of industrial education, p. 155.
- Bul. No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry: New York City.
- Bul. No. 193. Dressmaking as a trade for women in Massachusetts.
- Report on condition of woman and child wage earners in the United States (S. Doc. No. 645, 61st Cong., 2d sess.). 1910–1912.
- All bulletins in Women in Industry series.

Reports of the Massachusetts Minimum Wage Commission.

Lorinda Perry: Millinery as a trade for women. New York, 1916.

Mary Van Kleeck: Wages in the millinery trade. (In Fourth Report of New York State Factory Investigating Commission, 1915. Vol. II, pp. 361-469.)

Mary Van Kleeck: Women in the bookbinding trade. Russell Sage Foundation, New York, 1913.

Mary Van Kleeck: Artificial-flower makers. Russell Sage Foundation, New York, 1913.

[2] Anna C. Hedges: Wage worth of school training. Teachers' College, Columbia University, New York, 1915.

[3] Florence M. Marshall: Industrial training for women. Bulletin 4, National Society for the Promotion of Industrial Education, October, 1907.

PUBLICATIONS OF THE BUREAU OF LABOR STATISTICS.

The publication of the annual and special reports and of the bimonthly bulletin has been discontinued, and since July, 1912, a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively in each series and also carry a consecutive whole number, beginning with No. 101. A complete list of the reports and bulletins of the Bureau will be furnished on application.

A list of the series of bulletins now published by the Bureau is as follows:

Wholesale Prices.
Retail Prices and Cost of Living.
Wages and Hours of Labor.
Employment and Unemployment.
Women in Industry.
Workmen's Insurance and Compensation (including laws relating thereto).
Industrial Accidents and Hygiene.
Conciliation and Arbitration (including strikes and lockouts).
Labor Laws of the United States (including decisions of courts relating to labor).
Foreign Labor Laws.
Miscellaneous Series.

WOMEN IN INDUSTRY.

Prior to the publication of the reports of the Bureau in the present form, many reports were issued devoted wholly or in part to the subject of "Women in Industry." For a full list of these the reader is referred to Bulletin No. 174, Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915. Reports dealing with the subjects (not including the summaries digests of State and foreign reports) are as follows:

*Fourth Annual Report, 1888. Working women in large cities.
Eighth Annual Report, 1892. Industrial education.
Eleventh Annual Report, 1895-96. Work and wages of men, women, and children.
*Bulletin No. 15, March, 1898. Boarding homes and clubs for working women.
Seventeenth Annual Report, 1902. Trade and technical education.
*Bulletin No. 67, November, 1906. Conditions of entrance to the principal trades.
*Bulletin No. 73, November, 1907. Laws relating to employment of women and children.
*Bulletin No. 75, March, 1908. Industrial hygiene.
*Twenty-third Annual Report, 1908. Workmen's insurance and benefit funds in the United States.
*Bulletin No. 80, January, 1909. Woman and child wage-earners in Great Britain.
Bulletin No. 83, July, 1909. Women's trade-union movement in Great Britain.
*Twenty-fourth Annual Report, 1909. Workmen's insurance and compensation systems in Europe.
*Bulletin No. 91, November, 1910. Working hours of wage-earning women in selected industries in Chicago.
*Twenty-fifth Annual Report, 1910. Industrial education.
*1910. Investigation of telephone companies. (S. Doc. No. 380, 61st Cong., 2d sess.)
*1910-1913. Report on condition of woman and child wage earners in the United States. (S. Doc. No. 645, 61st Cong., 2d sess.)
    *Vol. I, Cotton textile industry.
    *Vol. II, Men's ready-made clothing.
    *Vol. III, Glass industry.
    *Vol. IV, Silk industry.
    *Vol. V, Wage-earning women in stores and factories.
    *Vol. IX, History of women in industry in the United States.
    *Vol. X, History of women in trade-unions.
    *Vol. XI, Employment of women in metal trades.
    *Vol. XII, Employment of women in laundries.
    *Vol. XIII, Infant mortality and its relation to the employment of mothers.
    *Vol. XIV, Causes of death among woman and child cotton-mill operatives.
    *Vol. XV, Relation between occupation and criminality of women.
    *Vol. XVI, Family budgets of typical cotton-mill workers.
    *Vol. XVIII, Employment of women and children in selected industries.
    *Vol. XIX, Labor laws and factory conditions.
*Bulletin No. 96, September, 1911. Working hours, earnings, and duration of employment of women workers in selected industries of Maryland and of California.
*1912. Report of strike of textile workers in Lawrence, Mass., in 1912. (S. Doc. No. 870, 62d Cong., 2d sess.)

---

* Supply exhausted.

[Continued on third page of cover.]

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . WHOLE NUMBER 215
WOMEN IN INDUSTRY SERIES: NO. 10

INDUSTRIAL EXPERIENCE OF TRADE-SCHOOL GIRLS IN MASSACHUSETTS

OCTOBER, 1917

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
25 CENTS PER COPY

CONTENTS.

Page.

Chapter I.—Introduction 7–13
  Problem of trade training for girls 7, 8
  Growth of trade schools for girls in Massachusetts 8, 9
  New questions involved in industrial education 9, 10
  Methods and scope of this survey 10–13
Chapter II.—The school problem 15–66
  The school 15–22
    Growth of enrollment in trade schools 15, 16
    Noncompetitive character of trade and ordinary schools 16–18
    Courses offered in the different trade schools 18–20
    Relative demand for the different courses 20–22
  The pupils and the school 22–65
    Age and previous schooling of pupils entering the trade schools 22–26
    Degree to which trade training is utilized 26, 27
    Relation of age at leaving school to utilization of trade training 27–30
    Relation between amount of previous schooling and tendency to enter trade for which trained 30–34
    Relation between length of trade-school course and use of trade training. 34–41
      Time actually spent in trade school 35–38
      Distribution, by length of trade training, of girls using their trades. 38–41
    Placement by Boston Trade School 41–44
    Reasons for leaving trade schools 44–46
    Prevailing misconceptions of scope of trade-school work 46–48
    Adjustment of trade-school pupils to the trade 48–55
    School tests for ascertaining trade ability 55–58
    Special methods for adapting pupils to trade demands 58–60
    Stability of trade-school girls in trade positions 60–63
    Cooperation between trade school and employers 63, 64
    Methods by which trade-school pupils secure positions 64, 65
  Summary 65, 66
Chapter III.—Industrial experience of Boston trade-school girls 67–96
  Difficulty of determining effectiveness of trade-school training 67–69
  Statistical basis of study of industrial experience 69–72
    Age and length of working experience of Boston Trade School girls studied 70–72
  Girls who did not use the trade for which they were trained 72–75
  Girls who used the trade for which they were trained 75–95
    Stability in industry 75–78
      Sifting-out process in school 75–77
      Industrial distribution at end of specified periods out of trade school 77, 78
    Stability in trade for which trained 78–90
      Age in relation to permanence in trade 84, 85
      Shifting of individual trade-school girls 85–88
      Movement of trade-school girls from one trade to another, or from one position to another 88–90
    Secondary employments 90–93
    Reasons for leaving primary trade 93–95
  Summary 95, 96

Page.

Chapter IV.—Wages of Boston Trade School Girls 97–147
- Introduction 97, 98
  - Reasons for studying wages 97
  - Real versus nominal wages 97, 98
  - Difficulty of securing data 98
- Average weekly wages in successive years 98–106
  - Girls remaining in trade for which trained and those leaving it for other occupations 99, 100
  - Girls who never used trade for which trained 100, 101
  - Time required by different groups to reach $8 a week 101
  - Rate of advance in different groups 101, 102
  - Relation of wages of individual workers to average wage 102, 103
  - Average wages of trade-trained workers 103–105
  - Average wages of trade-school girls compared with those of trade-trained workers 105, 106
- Classified weekly wages in successive years in sewing trades 107–113
- Initial wage of the trade-school girl 114–116
  - Policy of school in respect to initial wage 114
  - Initial wage for two five-year periods 114, 115
  - Rate of wage advanced compared with initial wage 115, 116
- Wages and occupations of trade-school girls at specified periods in their working experience 117–127
  - Girls remaining in trade for which trained and those leaving it for other occupations 117–123
  - Girls never using trade for which trained 124
  - Comparative wages of trade-school and trade-trained dressmakers and factory sewers at specified periods 124–127
- Factors determining wage advancement 127–142
  - Length of working experience 127–133
  - Age at beginning work 133–138
    - Effect on wages of trade-school girls 133–136
    - Effect on wages of trade-trained girls 136–138
  - Academic education 138–142
    - Wages of trade-school dressmakers, classified according to previous schooling 138–141
    - Wages of trade-trained dressmakers, classified according to previous schooling 141, 142
- Wages and length of working season 143–146
  - Length of season, by trades, for 533 trade-school girls 143–145
  - Wages of trade-school girls trained for sewing trades, classified according to length of working season and trades 145, 146
- Summary 146, 147

Chapter V.—Industrial experience and wages of Worcester and Cambridge trade-school girls 149–172
- Worcester Girls' Trade School 149–165
  - Age and industrial distribution of girls studied 149, 150
  - Employment in successive years 150–153
  - Length of working experience and employment 153, 154
  - Age and employment 154
  - Reasons for not using trade 154, 155
  - Average wages at specified periods 155–157
  - Classified wages at specified periods 157
  - Wages and occupations at specified periods 157–160

Chapter V.—Industrial experience and wages of Worcester and Cambridge trade-school girls—Concluded.

Worcester Girls' Trade School—Concluded.

Page.

- Factors affecting wages 160–163
  - Length of working experience 160–162
  - Age at beginning work 162
  - Academic and trade-school training 162, 163
- Wages and length of working season 163–165

Trade-trained sewing girls in Worcester 165–168

Cambridge Girls' Trade School 169–171

- Age, industrial distribution, and wages of girls studied 169–171

Summary 171, 172

Chapter VI.—The girl who has been trained in the trade school 173–194

- Location in regard to school 173–176
  - Area from which Boston Trade School girls are drawn 173, 174
  - Distance from school and persistence in attendance 174, 175
  - Distance from school and use of trade 175, 176
- Nativity of trade-school girls 176–181
- Economic status of families of trade-school girls 182–188
  - Occupations of fathers of trade-school girls 182–184
  - Girls employed during interval between grammar-school and trade-school attendance 184–186
  - Age at beginning work 186–188
- Family condition of trade-school girls 188, 189
- Contribution to family income 189–192
- Marriage as an interruption to working career 192, 193
- Summary 193, 194

Chapter VII.—Industries for which trade schools train 195–233

- Basis of trade training 195
- Women's clothing trades 195–199
  - Decrease in number of custom workers 196, 197
  - Decrease in proportion of young workers employed 197–199
- Custom sewing trades 200–210
  - Evolution of custom dressmaking 200–205
    - Attitude of employers toward beginners 201, 202
    - Attitude of employers toward trade schools and trade-school girls 202–205
  - Evolution of the millinery trade 205–209
    - Growth of factory and decrease of custom work 205–208
    - Attitude of employers toward trade-school girls 208, 209
  - Summary of effect of changes in custom sewing trades upon opportunities for trade-school girls 209, 210
- Power machine sewing trades 210–233
  - Need of training for these trades 211–213
  - Extent and character of these trades in Boston and Worcester 213, 214
  - Analysis of characteristics of production in factories making light-weight products 214–217
  - Opportunities and requirements in different branches of these trades 217–230
    - Dresses and waists 217–221
    - Neckwear 221, 222
    - Children's dresses 222, 223
    - Underwear 223–225
    - Shirts 225
    - Aprons and rompers 226
    - Curtains 227
    - Skirts 227, 228
    - Straw hats 229, 230

Chapter VII.—Industries for which trade schools train—Concluded.
  Power machine sewing trades—Concluded. Page.
    Methods of learning in the trades.................................. 230, 231
    Cost of teaching in the factory.................................. 231, 232
    Amount of shifting among factory employees.......................... 232, 233
  Summary.. 233
Chapter VIII.—Summary and conclusions................................ 235-242
Appendix A.—Courses and administration of the trade schools for girls in Massachusetts.. 243-256
  Courses in the trade schools.. 243-246
  Courses of departments in the Worcester Trade School.................. 246-253
    Dressmaking.. 247, 248
    Power-machine operating.. 248, 249
    Millinery.. 249, 250
    Trade cooking.. 250
    Academic, art, cooking (general) courses, and physical education... 250-253
  Administration of girls' trade schools.................................. 253-256
Appendix B.—Evening industrial schools for girls.................... 257-269

This study was undertaken in September, 1914, by the Department of Research of the Women's Educational and Industrial Union of Boston, under the direction of Dr. May Allinson, associate director, and with the advice and criticism of Dr. Susan M. Kingsbury, director of the department. The study covered a period of eleven months, seven months being devoted to field work and four months to writing the report. Three fellows, Louise Moore, Edith Gray, and Cora Parkhurst, with two secretaries in the office, constituted the working force. Special recognition should be given Louise Moore for her independent work in planning and presenting the material in Chapter II on The school problem, her analyses of the machine-operating trades (pp. 210 to 233), and for Appendixes A and B.

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 215. WASHINGTON. OCTOBER, 1917.

INDUSTRIAL EXPERIENCE OF TRADE-SCHOOL GIRLS IN MASSACHUSETTS.

CHAPTER I.—INTRODUCTION.

PROBLEM OF TRADE TRAINING FOR GIRLS.

Trade training for girls has proved to be one of the most difficult problems of present-day education. Federal, State, and private reports on industrial conditions under which women work show the need for some kind of more adequate preparation for life.[1] With an appreciation of the significance of these conditions has come a new conception of education: a realization, first, that some sort of education must be developed for those girls who can not be profited by existing forms and, second, that teaching for trades must be undertaken by educators in cooperation with employers.

Naturally, conflicting theories have arisen as to where, when, and how this trade training can best be given. First, some educators and employers insist that it can and should be given only in the factory.[2] Second, some maintain that systematic training can be given only in special trade schools, because training and production on a profit basis are incompatible.[3] Third, others are still debating as to whether this trade training can best be given preliminary to

employment or in the form of continuation schooling, either in part-time day classes or in evening classes.[1] Fourth, still others oppose special industrial schools for the 14 to 16 year old child on the ground that they must either deplete or unnecessarily duplicate the present educational system and tend toward class distinction.[2]

---

[1] Massachusetts. Report of the Commission on Industrial and Technical Education. April, 1906.
National Society for the Promotion of Industrial Education. Reports and bulletins.
United States Bureau of Education, A trade school for girls, Bulletin, 1913, No. 17.
United States Bureau of Labor Statistics publications:
Bul. No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. Appendix I—A study of the dress and waist industry for the purpose of industrial education, p. 155.
Bul. No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry: New York City.
Bul. No. 193. Dressmaking as a trade for women in Massachusetts.
Report on condition of woman and child wage earners in the United States (S. Doc. No. 645, 61st Cong., 2d sess.). 1910–1912.
All bulletins in Women in Industry series.
Reports of the Massachusetts Minimum Wage Commission.
Lorinda Perry: Millinery as a trade for women. New York, 1916.
Mary Van Kleeck: Wages in the millinery trade. (In Fourth Report of New York State Factory Investigating Commission, 1915. Vol. II, pp. 361-469.)
Mary Van Kleeck: Women in the bookbinding trade. Russell Sage Foundation, New York, 1913.
Mary Van Kleeck: Artificial-flower makers. Russell Sage Foundation, New York, 1913.

[2] Anna C. Hedges: Wage worth of school training. Teachers' College, Columbia University, New York, 1915.

[3] Florence M. Marshall: Industrial training for women. Bulletin 4, National Society for the Promotion of Industrial Education, October, 1907.

Whether a long or short period of training is required, what proportion of time should be devoted to practical trade work and what to related academic training, and how the academic and trade work can best be combined, are questions still argued. The administrative system by which these schools shall be controlled is another source of controversy and both the unit and dual systems exist in Massachusetts.[3]

Even if an agreement were reached upon the where, when, and how of industrial education, the most perplexing question of all, What shall constitute the basis of trade training—that is, for what trades shall these schools train?—is after ten years still an open question.

GROWTH OF TRADE SCHOOLS FOR GIRLS IN MASSACHUSETTS.

The first so-called trade school for girls in the United States was established by private initiative in New York City in 1902. It was planned to meet local problems and to train girls for the sewing trades which occupy so important a place in that city,[4] and which offer good opportunities for the girl who has sufficient fundamental training to gain entrance. In 1904, the Boston Trade School for Girls was established by private initiative, also giving its main emphasis to training for the custom sewing trades, which occupy a much smaller place in Boston, but still, at that time, presented good openings. After five years' experimentation under private management, both schools were taken over as a part of the public-school system. In 1911, the Worcester and Somerville schools were established, in Worcester as a part of the Independent Industrial Schools and in Somerville[5] as a part of the public-school system. In 1913, the Cambridge Trade School was established as a part of the public-school system.

---

[1] Massachusetts, Board of Education: Special report on the needs and possibilities of part-time education, 1913. Also Mary Van Kleeck: Working girls in evening schools. Russell Sage Foundation, New York, 1914. Also Anna C. Hedges: Wage worth of school training.

[2] John Dewey: Industrial education and democracy, in Survey, Mar. 22, 1913, p. 870. See also David Snedden and John Dewey: Communications on vocational education in New Republic, May 15, 1915, pp. 40-43.

[3] The question of the dual system, in Survey, Jan. 18, 1913, p. 490.

H. E. Miles: Work and citizenship—The Wisconsin experiment in industrial education, in Survey, Feb. 15, 1913, p. 682.

E. H. Fish: Revolution in school control, in Survey, June 21, 1913, p. 407.

[4] Mrs. Mary Schenck Woolman: The making of a girls' trade school. Columbia University Press, New York, 1909.

[5] The Somerville School was changed to the Vocational School for Girls—offering training for home making—in 1913-14.

All the trade schools have been organized on the model of the Manhattan Trade School, giving the main emphasis to the custom sewing trades. But, while the Manhattan Trade School might train and place advantageously any number of girls who applied for training in the custom sewing trades, the Massachusetts trade schools soon found that this opportunity was limited. In Worcester, for instance, only a small proportion of the young girls trained for dressmaking and millinery can utilize their training in a wage-earning capacity because of the limited number of openings in this city. The schools in the different localities, therefore, are gradually being forced to adjust their training to local trade conditions, and to realize certain fundamental facts: First, that there is a fairly constant but very limited demand for young girls with some degree of skill and maturity in the custom sewing trades, and, second, that the school must develop new lines of work for those without special aptitude in the trades originally selected by the school.

NEW QUESTIONS INVOLVED IN INDUSTRIAL EDUCATION.

Trade schools at first met much serious criticism and there was a conscious emphasis by their supporters on their educative value and their development of the girl as a future home maker. After these new schools became established as a recognized part of the school system, a new and more insistent issue was faced—that of the pupils' capacity to meet trade standards. The new emphasis, therefore, is laid on trade efficiency. But since trade efficiency means personal advancement, the two motives are by no means divorced but very intimately connected.

A new and most serious situation, however, now confronts the trade schools for girls, for the sewing trades have undergone a tremendous industrial evolution during the twelve or more years these schools have been training for these trades.

Opportunities for trade-school pupils are decreasing in the custom trades, not only from the standpoint of decreasing numbers employed but also because of the industrial demands for increasing maturity, skill, and experience. The insistent problem of the immediate future is, therefore, twofold: To develop a type of trade training in accordance with the specific industrial needs of each of these custom trades, and to divert the pupils to some extent into other lines of work, so that the number of trained workers turned out shall not exceed the capacity of their trades to provide them employment.

Industrial education thus involves many new questions which are increasingly demanding consideration.

1. A trade school must know the trend and the demands of the trades, (*a*) from the standpoint of numbers that it may not over-

stock the supply, and (*b*) from the standpoint of qualifications of the workers that its pupils may be able to meet trade demands.

2. Trade practice and products which change greatly and without reason in the fashion trades constitute the basis of instruction.

3. A new conception of school administration becomes a necessity, for the trade school must be allowed a large degree of independence, flexibility, and correlation with and adjustment to the industries to which it caters. Its methods, hours and atmosphere must approximate trade rather than school conditions.

4. Since the efficiency of a vocational school is judged by the success of its pupils, the trade school must study the industrial experience of its pupils that it may, on a basis of concrete knowledge, develop and readjust its curriculum to meet the changing needs and conditions.

METHODS AND SCOPE OF THIS SURVEY.

To provide some concrete facts on these many points of debate, this study was undertaken. The main purpose has been to see to what extent the trade school can equip a girl as an efficient producer. To draw fair and intelligent conclusions, we must know:

1. What proportion of the girls complete their trade course—that is, what degree of selection is represented by the girls who utilize their training in a wage-earning capacity?
2. What has been the aim of the school and the methods by which it has sought to prepare the girl for wage earning?
3. What are the processes and conditions of employment in the industries and what demands do they make on their workers?
4. How does the trade-school girl meet these demands in comparison with the girl who has acquired her training in the industry itself?

Because of the comparatively short existence of these schools, it was within reason to attempt a complete survey of the total number who had gone out from the three trade schools, Boston, Worcester and Cambridge, as a basis for conclusion, rather than to employ the more usual sampling method. The records of all girls leaving school were taken from the school files, 2,044 girls leaving the Boston Trade School from September, 1904 to September, 1914, 343 from the Worcester Trade School from September, 1911 to February, 1915, and 113 from the Cambridge Trade School from February, 1913 to February, 1915, making a total of 2,500 trade-school girls.

Since the trade schools make an effort to place their pupils and to keep a record of their subsequent experience, some index was provided as to those using and not using their training in a wage-earning capacity. These records also provided data on the date of birth, previous schooling, date of entering the trade school, course, and usually the father's occupation, taken at the time of registration.

An intensive study of the working experience through personal interviews with all girls who used their training in a wage-earning capacity and all others who attended the trade school nine months or more was determined on for Boston and Worcester, and of the total group from the Cambridge Trade School, since the comparatively small number made this possible. Because the effort has been made to give a complete picture of all girls who used their training, the total number is accounted for in most of the tables, even though there may be no data on some one point, because the girl could not remember this particular item.

In Boston, records were found of 788 who had used their training one week or more and of 135 who had attended the trade school nine months or more but had not used their trade, making a total of 923, or 45.2 per cent of the total number leaving during the school's 10 years' existence. This number was checked from every possible source. Girls from different classes went through the lists and frequently contributed helpful information. All girls visited in their homes were asked for information concerning their classmates and sometimes contributed new names which had not appeared on the trade-school records. Forty-four additional girls whose names were secured in this way were followed up on one clue or another, but were found not to have used their trade. Seventy-four of the 923 could not be located, leaving 849, of whom 744 used their trade and 105 attended the trade school nine months or more but did not use their trade.

The problem was simpler in Worcester because the experience of the school covered only three years. Of a total of 343 girls, 166 had used their trade or attended the trade school nine months or more and all were found and interviewed. In spite of the short period (two years) covered by the Cambridge Trade School, 15 of the total 113 girls could not be located, making 98 girls the basis of study for this school.

Of the total, 2,500 girls, therefore, leaving the three trade schools, 1,202 girls, or 48.1 per cent, were chosen for an intensive study of their working experience, and of these 1,113, or 92.6 per cent, were found and interviewed.

Naturally many difficulties were encountered in securing these "experience" records. Some of the addresses dated 10 years back, and a long trip to a remote suburb sometimes brought the investigator to an empty lot or to a big factory where once may have stood a house. The girls had scattered to all parts of the United States, and a few of the records had to be secured by correspondence, several letters sometimes being required to clear up one fact. One record came from Detroit, another from Austin, Tex., another from New York, another from New Jersey. Names had changed for various

reasons. Mary Smith was reported by a neighbor to have married a Mr. Pistachio, who worked in the Palace of Sweets in Lynn. A letter to Mrs. Pistachio brought no response, and as a last resort, before making the trip, the investigator secured telephone connection with the Palace of Sweets and asked for Mr. Pistachio. The blur of sounds served the investigator well, for the voice at the other end asked, "You wish Mr. Rustaccio?" The investigator, assenting, found that Mr. Rustaccio was the husband of Mary Smith and received a hearty invitation to come to-morrow afternoon at 3 o'clock and she would be sure to be at home.

Maria Martinucci was sought far and near. Neighbors, teachers, settlement workers in the neighborhood were interviewed. Tracer letters were sent to no avail. One day another trade-school girl mentioned that Maria was working at Madame X's. The investigator hurried to the shop and was met with the statement that no such person ever worked there. "Ask Madame X," insisted the investigator, "if she knows her." Madame came out and, after listening to the story, said, "Oh, you must mean Mary Martin." Mary Martin was called out and proved to be Maria Martinucci, the trade-school girl.

Clues no more definite than "I don't know where she lives, but she is cashier in ———, in the grocery department on the fifth floor, right opposite the meat"; or "Ask the undertaker on the corner; he buried her brother last year," brought the investigator in touch with girls from whom the trade school had had no information for years. The most difficult situation to surmount was occasioned by precautionary measures against being traced by bill collectors. In several cases the investigator secured certain information of a girl but could not personally reach her. "Oh, she's a friend of mine; I wouldn't put a collector on her track," was the reply to inquiries and all efforts to locate her proved futile.

From these girls was sought their complete working experience by successive years, after leaving the trade school, that information might be gained on such points as these:

1. What types are coming to the trade school for training and how do they correspond to the types already in these trades?
2. What are the requisite qualifications for success and what proportion complete the course of training?
3. What proportion enter their trade and in what length of time do they become self-supporting?
4. What influences determine advancement and success?

For some basis of comparison it was decided to secure the experience record of 100 girls in dressmaking and in the cloth machine-operating trades in Boston. The method by which these should be secured was one for serious consideration. The first attempt was made to secure cases from the educational certificates in the school

offices, all girls of 16 to 21 years being so registered by law. This was soon found impracticable as the sole basis, since the new law of 1913, under which a new system was inaugurated, had been in force only one year, and the types secured by this means proved to be below normal, drifting from industry to industry and from shop to shop.[1] Complete lists of all girls not exceeding 25 years were next taken from pay rolls of typical shops and factories. This method excluded the drifter in most cases, since the girl remaining less than one week did not appear on the pay roll. The lists were supplemented by names secured through other girls, or from people in touch with girls in the sewing trades. Forty-six girls who were under 25 years and were employed in the sewing trades in Worcester were secured through the Worcester Evening Trade School. Through these different methods a group of girls were secured who correspond to a surprising degree in age, education, and wage with the trade-school girls.

A study of the three trade schools to discover their purpose, the needs which they attempt to meet, and the methods by which they are trying to fulfill their aim, and a cursory survey of the industries to see to what extent the school has grasped its problem rounded out the study.

The following chapters therefore seek to show:

1. The problems with which the trade school has been confronted from the standpoint of—

(*a*) The girl who comes for training.

(*b*) The industries for which it trains.

2. The specific problems which it has attempted to solve and the extent to which it has succeeded or failed.

3. The conclusions which may be drawn for future development and adjustment.

---

[1] See Table 50, p. 87.

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
25 CENTS PER COPY

CONTENTS.

Page.
- **Chapter I.—Introduction** 7–13
  - Problem of trade training for girls 7, 8
  - Growth of trade schools for girls in Massachusetts 8, 9
  - New questions involved in industrial education 9, 10
  - Methods and scope of this survey 10–13
- **Chapter II.—The school problem** 15–66
  - The school 15–22
    - Growth of enrollment in trade schools 15, 16
    - Noncompetitive character of trade and ordinary schools 16–18
    - Courses offered in the different trade schools 18–20
    - Relative demand for the different courses 20–22
  - The pupils and the school 22–65
    - Age and previous schooling of pupils entering the trade schools 22–26
    - Degree to which trade training is utilized 26, 27
    - Relation of age at leaving school to utilization of trade training 27–30
    - Relation between amount of previous schooling and tendency to enter trade for which trained 30–34
    - Relation between length of trade-school course and use of trade training 34–41
      - Time actually spent in trade school 35–38
      - Distribution, by length of trade training, of girls using their trades 38–41
    - Placement by Boston Trade School 41–44
    - Reasons for leaving trade schools 44–46
    - Prevailing misconceptions of scope of trade-school work 46–48
    - Adjustment of trade-school pupils to the trade 48–55
    - School tests for ascertaining trade ability 55–58
    - Special methods for adapting pupils to trade demands 58–60
    - Stability of trade-school girls in trade positions 60–63
    - Cooperation between trade school and employers 63, 64
    - Methods by which trade-school pupils secure positions 64, 65
  - Summary 65, 66
- **Chapter III.—Industrial experience of Boston trade-school girls** 67–96
  - Difficulty of determining effectiveness of trade-school training 67–69
  - Statistical basis of study of industrial experience 69–72
    - Age and length of working experience of Boston Trade School girls studied 70–72
  - Girls who did not use the trade for which they were trained 72–75
  - Girls who used the trade for which they were trained 75–95
    - Stability in industry 75–78
      - Sifting-out process in school 75–77
      - Industrial distribution at end of specified periods out of trade school 77, 78
    - Stability in trade for which trained 78–90
      - Age in relation to permanence in trade 84, 85
      - Shifting of individual trade-school girls 85–88
      - Movement of trade-school girls from one trade to another, or from one position to another 88–90
    - Secondary employments 90–93
    - Reasons for leaving primary trade 93–95
  - Summary 95, 96

Page.
- **Chapter IV.—Wages of Boston Trade School Girls** 97–147
  - Introduction 97, 98
    - Reasons for studying wages 97
    - Real versus nominal wages 97, 98
    - Difficulty of securing data 98
  - Average weekly wages in successive years 98–106
    - Girls remaining in trade for which trained and those leaving it for other occupations 99, 100
    - Girls who never used trade for which trained 100, 101
    - Time required by different groups to reach $8 a week 101
    - Rate of advance in different groups 101, 102
    - Relation of wages of individual workers to average wage 102, 103
    - Average wages of trade-trained workers 103–105
    - Average wages of trade-school girls compared with those of trade-trained workers 105, 106
  - Classified weekly wages in successive years in sewing trades 107–113
  - Initial wage of the trade-school girl 114–116
    - Policy of school in respect to initial wage 114
    - Initial wage for two five-year periods 114, 115
    - Rate of wage advanced compared with initial wage 115, 116
  - Wages and occupations of trade-school girls at specified periods in their working experience 117–127
    - Girls remaining in trade for which trained and those leaving it for other occupations 117–123
    - Girls never using trade for which trained 124
    - Comparative wages of trade-school and trade-trained dressmakers and factory sewers at specified periods 124–127
  - Factors determining wage advancement 127–142
    - Length of working experience 127–133
    - Age at beginning work 133–138
      - Effect on wages of trade-school girls 133–136
      - Effect on wages of trade-trained girls 136–138
    - Academic education 138–142
      - Wages of trade-school dressmakers, classified according to previous schooling 138–141
      - Wages of trade-trained dressmakers, classified according to previous schooling 141, 142
  - Wages and length of working season 143–146
    - Length of season, by trades, for 533 trade-school girls 143–145
    - Wages of trade-school girls trained for sewing trades, classified according to length of working season and trades 145, 146
  - Summary 146, 147
- **Chapter V.—Industrial experience and wages of Worcester and Cambridge trade-school girls** 149–172
  - Worcester Girls' Trade School 149-165
    - Age and industrial distribution of girls studied 149, 150
    - Employment in successive years 150–153
    - Length of working experience and employment 153, 154
    - Age and employment 154
    - Reasons for not using trade 154, 155
    - Average wages at specified periods 155–157
    - Classified wages at specified periods 157
    - Wages and occupations at specified periods 157-160

Chapter V.—Industrial experience and wages of Worcester and Cambridge trade-school girls—Concluded.

Worcester Girls' Trade School—Concluded.

Page.

- Factors affecting wages 160–163
  - Length of working experience 160–162
  - Age at beginning work 162
  - Academic and trade-school training 162, 163
- Wages and length of working season 163–165

Trade-trained sewing girls in Worcester 165–168

Cambridge Girls' Trade School 169–171

- Age, industrial distribution, and wages of girls studied 169–171

Summary 171, 172

Chapter VI.—The girl who has been trained in the trade school 173–194

- Location in regard to school 173–176
  - Area from which Boston Trade School girls are drawn 173, 174
  - Distance from school and persistence in attendance 174, 175
  - Distance from school and use of trade 175, 176
- Nativity of trade-school girls 176–181
- Economic status of families of trade-school girls 182–188
  - Occupations of fathers of trade-school girls 182–184
  - Girls employed during interval between grammar-school and trade-school attendance 184–186
  - Age at beginning work 186–188
- Family condition of trade-school girls 188, 189
- Contribution to family income 189–192
- Marriage as an interruption to working career 192, 193
- Summary 193, 194

Chapter VII.—Industries for which trade schools train 195–233

- Basis of trade training 195
- Women's clothing trades 195–199
  - Decrease in number of custom workers 196, 197
  - Decrease in proportion of young workers employed 197–199
- Custom sewing trades 200–210
  - Evolution of custom dressmaking 200–205
    - Attitude of employers toward beginners 201, 202
    - Attitude of employers toward trade schools and trade-school girls 202–205
  - Evolution of the millinery trade 205–209
    - Growth of factory and decrease of custom work 205–208
    - Attitude of employers toward trade-school girls 208, 209
  - Summary of effect of changes in custom sewing trades upon opportunities for trade-school girls 209, 210
- Power machine sewing trades 210–233
  - Need of training for these trades 211–213
  - Extent and character of these trades in Boston and Worcester 213, 214
  - Analysis of characteristics of production in factories making light-weight products 214–217
  - Opportunities and requirements in different branches of these trades 217–230
    - Dresses and waists 217–221
    - Neckwear 221, 222
    - Children's dresses 222, 223
    - Underwear 223–225
    - Shirts 225
    - Aprons and rompers 226
    - Curtains 227
    - Skirts 227, 228
    - Straw hats 229, 230

Chapter VII.—Industries for which trade schools train—Concluded.
  Power machine sewing trades—Concluded. Page.
    Methods of learning in the trades 230, 231
    Cost of teaching in the factory 231, 232
    Amount of shifting among factory employees 232, 233
  Summary 233
Chapter VIII.—Summary and conclusions 235–242
Appendix A.—Courses and administration of the trade schools for girls in Massachusetts 243–256
  Courses in the trade schools 243–246
  Courses of departments in the Worcester Trade School 246–253
    Dressmaking 247, 248
    Power-machine operating 248, 249
    Millinery 249, 250
    Trade cooking 250
    Academic, art, cooking (general) courses, and physical education... 250–253
  Administration of girls' trade schools 253–256
Appendix B.—Evening industrial schools for girls 257–269

This study was undertaken in September, 1914, by the Department of Research of the Women's Educational and Industrial Union of Boston, under the direction of Dr. May Allinson, associate director, and with the advice and criticism of Dr. Susan M. Kingsbury, director of the department. The study covered a period of eleven months, seven months being devoted to field work and four months to writing the report. Three fellows, Louise Moore, Edith Gray, and Cora Parkhurst, with two secretaries in the office, constituted the working force. Special recognition should be given Louise Moore for her independent work in planning and presenting the material in Chapter II on The school problem, her analyses of the machine-operating trades (pp. 210 to 233), and for Appendixes A and B.

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 215. WASHINGTON. OCTOBER, 1917.

INDUSTRIAL EXPERIENCE OF TRADE-SCHOOL GIRLS IN MASSACHUSETTS.

CHAPTER I.—INTRODUCTION.

PROBLEM OF TRADE TRAINING FOR GIRLS.

Trade training for girls has proved to be one of the most difficult problems of present-day education. Federal, State, and private reports on industrial conditions under which women work show the need for some kind of more adequate preparation for life.[1] With an appreciation of the significance of these conditions has come a new conception of education: a realization, first, that some sort of education must be developed for those girls who can not be profited by existing forms and, second, that teaching for trades must be undertaken by educators in cooperation with employers.

Naturally, conflicting theories have arisen as to where, when, and how this trade training can best be given. First, some educators and employers insist that it can and should be given only in the factory.[2] Second, some maintain that systematic training can be given only in special trade schools, because training and production on a profit basis are incompatible.[3] Third, others are still debating as to whether this trade training can best be given preliminary to

employment or in the form of continuation schooling, either in part-time day classes or in evening classes.[1] Fourth, still others oppose special industrial schools for the 14 to 16 year old child on the ground that they must either deplete or unnecessarily duplicate the present educational system and tend toward class distinction.[2]

---

[1] Massachusetts. Report of the Commission on Industrial and Technical Education. April, 1906.
National Society for the Promotion of Industrial Education. Reports and bulletins.
United States Bureau of Education, A trade school for girls, Bulletin, 1913, No. 17.
United States Bureau of Labor Statistics publications:
  Bul. No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. Appendix I—A study of the dress and waist industry for the purpose of industrial education, p. 155.
  Bul. No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry: New York City.
  Bul. No. 193. Dressmaking as a trade for women in Massachusetts.
  Report on condition of woman and child wage earners in the United States (S. Doc. No. 645, 61st Cong., 2d sess.). 1910–1912.
  All bulletins in Women in Industry series.
Reports of the Massachusetts Minimum Wage Commission.
Lorinda Perry: Millinery as a trade for women. New York, 1916.
Mary Van Kleeck: Wages in the millinery trade. (In Fourth Report of New York State Factory Investigating Commission, 1915. Vol. II, pp. 361-469.)
Mary Van Kleeck: Women in the bookbinding trade. Russell Sage Foundation, New York, 1913.
Mary Van Kleeck: Artificial-flower makers. Russell Sage Foundation, New York, 1913.

[2] Anna C. Hedges: Wage worth of school training. Teachers' College, Columbia University, New York, 1915.

[3] Florence M: Marshall: Industrial training for women. Bulletin 4, National Society for the Promotion of Industrial Education, October, 1907.

Whether a long or short period of training is required, what proportion of time should be devoted to practical trade work and what to related academic training, and how the academic and trade work can best be combined, are questions still argued. The administrative system by which these schools shall be controlled is another source of controversy and both the unit and dual systems exist in Massachusetts.[3]

Even if an agreement were reached upon the where, when, and how of industrial education, the most perplexing question of all, What shall constitute the basis of trade training—that is, for what trades shall these schools train?—is after ten years still an open question.

GROWTH OF TRADE SCHOOLS FOR GIRLS IN MASSACHUSETTS.

The first so-called trade school for girls in the United States was established by private initiative in New York City in 1902. It was planned to meet local problems and to train girls for the sewing trades which occupy so important a place in that city,[4] and which offer good opportunities for the girl who has sufficient fundamental training to gain entrance. In 1904, the Boston Trade School for Girls was established by private initiative, also giving its main emphasis to training for the custom sewing trades, which occupy a much smaller place in Boston, but still, at that time, presented good openings. After five years' experimentation under private management, both schools were taken over as a part of the public-school system. In 1911, the Worcester and Somerville schools were established, in Worcester as a part of the Independent Industrial Schools and in Somerville[5] as a part of the public-school system. In 1913, the Cambridge Trade School was established as a part of the public-school system.

---

[1] Massachusetts, Board of Education: Special report on the needs and possibilities of part-time education, 1913. Also Mary Van Kleeck: Working girls in evening schools. Russell Sage Foundation, New York, 1914. Also Anna C. Hedges: Wage worth of school training.

[2] John Dewey: Industrial education and democracy, in Survey, Mar. 22, 1913, p. 870. See also David Snedden and John Dewey: Communications on vocational education in New Republic, May 15, 1915, pp. 40-43.

[3] The question of the dual system, in Survey, Jan. 18, 1913, p. 490.

H. E. Miles: Work and citizenship—The Wisconsin experiment in industrial education, in Survey, Feb. 15, 1913, p. 682.

E. H. Fish: Revolution in school control, in Survey, June 21, 1913, p. 407.

[4] Mrs. Mary Schenck Woolman: The making of a girls' trade school. Columbia University Press, New York, 1909.

[5] The Somerville School was changed to the Vocational School for Girls—offering training for home making—in 1913-14.

All the trade schools have been organized on the model of the Manhattan Trade School, giving the main emphasis to the custom sewing trades. But, while the Manhattan Trade School might train and place advantageously any number of girls who applied for training in the custom sewing trades, the Massachusetts trade schools soon found that this opportunity was limited. In Worcester, for instance, only a small proportion of the young girls trained for dressmaking and millinery can utilize their training in a wage-earning capacity because of the limited number of openings in this city. The schools in the different localities, therefore, are gradually being forced to adjust their training to local trade conditions, and to realize certain fundamental facts: First, that there is a fairly constant but very limited demand for young girls with some degree of skill and maturity in the custom sewing trades, and, second, that the school must develop new lines of work for those without special aptitude in the trades originally selected by the school.

NEW QUESTIONS INVOLVED IN INDUSTRIAL EDUCATION.

Trade schools at first met much serious criticism and there was a conscious emphasis by their supporters on their educative value and their development of the girl as a future home maker. After these new schools became established as a recognized part of the school system, a new and more insistent issue was faced—that of the pupils' capacity to meet trade standards. The new emphasis, therefore, is laid on trade efficiency. But since trade efficiency means personal advancement, the two motives are by no means divorced but very intimately connected.

A new and most serious situation, however, now confronts the trade schools for girls, for the sewing trades have undergone a tremendous industrial evolution during the twelve or more years these schools have been training for these trades.

Opportunities for trade-school pupils are decreasing in the custom trades, not only from the standpoint of decreasing numbers employed but also because of the industrial demands for increasing maturity, skill, and experience. The insistent problem of the immediate future is, therefore, twofold: To develop a type of trade training in accordance with the specific industrial needs of each of these custom trades, and to divert the pupils to some extent into other lines of work, so that the number of trained workers turned out shall not exceed the capacity of their trades to provide them employment.

Industrial education thus involves many new questions which are increasingly demanding consideration.

1. A trade school must know the trend and the demands of the trades, (*a*) from the standpoint of numbers that it may not over-

stock the supply, and (*b*) from the standpoint of qualifications of the workers that its pupils may be able to meet trade demands.

2. Trade practice and products which change greatly and without reason in the fashion trades constitute the basis of instruction.

3. A new conception of school administration becomes a necessity, for the trade school must be allowed a large degree of independence, flexibility, and correlation with and adjustment to the industries to which it caters. Its methods, hours and atmosphere must approximate trade rather than school conditions.

4. Since the efficiency of a vocational school is judged by the success of its pupils, the trade school must study the industrial experience of its pupils that it may, on a basis of concrete knowledge, develop and readjust its curriculum to meet the changing needs and conditions.

METHODS AND SCOPE OF THIS SURVEY.

To provide some concrete facts on these many points of debate, this study was undertaken. The main purpose has been to see to what extent the trade school can equip a girl as an efficient producer. To draw fair and intelligent conclusions, we must know:

1. What proportion of the girls complete their trade course—that is, what degree of selection is represented by the girls who utilize their training in a wage-earning capacity?

2. What has been the aim of the school and the methods by which it has sought to prepare the girl for wage earning?

3. What are the processes and conditions of employment in the industries and what demands do they make on their workers?

4. How does the trade-school girl meet these demands in comparison with the girl who has acquired her training in the industry itself?

Because of the comparatively short existence of these schools, it was within reason to attempt a complete survey of the total number who had gone out from the three trade schools, Boston, Worcester and Cambridge, as a basis for conclusion, rather than to employ the more usual sampling method. The records of all girls leaving school were taken from the school files, 2,044 girls leaving the Boston Trade School from September, 1904 to September, 1914, 343 from the Worcester Trade School from September, 1911 to February, 1915, and 113 from the Cambridge Trade School from February, 1913 to February, 1915, making a total of 2,500 trade-school girls.

Since the trade schools make an effort to place their pupils and to keep a record of their subsequent experience, some index was provided as to those using and not using their training in a wage-earning capacity. These records also provided data on the date of birth, previous schooling, date of entering the trade school, course, and usually the father's occupation, taken at the time of registration.

An intensive study of the working experience through personal interviews with all girls who used their training in a wage-earning capacity and all others who attended the trade school nine months or more was determined on for Boston and Worcester, and of the total group from the Cambridge Trade School, since the comparatively small number made this possible. Because the effort has been made to give a complete picture of all girls who used their training, the total number is accounted for in most of the tables, even though there may be no data on some one point, because the girl could not remember this particular item.

In Boston, records were found of 788 who had used their training one week or more and of 135 who had attended the trade school nine months or more but had not used their trade, making a total of 923, or 45.2 per cent of the total number leaving during the school's 10 years' existence. This number was checked from every possible source. Girls from different classes went through the lists and frequently contributed helpful information. All girls visited in their homes were asked for information concerning their classmates and sometimes contributed new names which had not appeared on the trade-school records. Forty-four additional girls whose names were secured in this way were followed up on one clue or another, but were found not to have used their trade. Seventy-four of the 923 could not be located, leaving 849, of whom 744 used their trade and 105 attended the trade school nine months or more but did not use their trade.

The problem was simpler in Worcester because the experience of the school covered only three years. Of a total of 343 girls, 166 had used their trade or attended the trade school nine months or more and all were found and interviewed. In spite of the short period (two years) covered by the Cambridge Trade School, 15 of the total 113 girls could not be located, making 98 girls the basis of study for this school.

Of the total, 2,500 girls, therefore, leaving the three trade schools, 1,202 girls, or 48.1 per cent, were chosen for an intensive study of their working experience, and of these 1,113, or 92.6 per cent, were found and interviewed.

Naturally many difficulties were encountered in securing these "experience" records. Some of the addresses dated 10 years back, and a long trip to a remote suburb sometimes brought the investigator to an empty lot or to a big factory where once may have stood a house. The girls had scattered to all parts of the United States, and a few of the records had to be secured by correspondence, several letters sometimes being required to clear up one fact. One record came from Detroit, another from Austin, Tex., another from New York, another from New Jersey. Names had changed for various

reasons. Mary Smith was reported by a neighbor to have married a Mr. Pistachio, who worked in the Palace of Sweets in Lynn. A letter to Mrs. Pistachio brought no response, and as a last resort, before making the trip, the investigator secured telephone connection with the Palace of Sweets and asked for Mr. Pistachio. The blur of sounds served the investigator well, for the voice at the other end asked, "You wish Mr. Rustaccio?" The investigator, assenting, found that Mr. Rustaccio was the husband of Mary Smith and received a hearty invitation to come to-morrow afternoon at 3 o'clock and she would be sure to be at home.

Maria Martinucci was sought far and near. Neighbors, teachers, settlement workers in the neighborhood were interviewed. Tracer letters were sent to no avail. One day another trade-school girl mentioned that Maria was working at Madame X's. The investigator hurried to the shop and was met with the statement that no such person ever worked there. "Ask Madame X," insisted the investigator, "if she knows her." Madame came out and, after listening to the story, said, "Oh, you must mean Mary Martin." Mary Martin was called out and proved to be Maria Martinucci, the trade-school girl.

Clues no more definite than "I don't know where she lives, but she is cashier in ———, in the grocery department on the fifth floor, right opposite the meat"; or "Ask the undertaker on the corner; he buried her brother last year," brought the investigator in touch with girls from whom the trade school had had no information for years. The most difficult situation to surmount was occasioned by precautionary measures against being traced by bill collectors. In several cases the investigator secured certain information of a girl but could not personally reach her. "Oh, she's a friend of mine; I wouldn't put a collector on her track," was the reply to inquiries and all efforts to locate her proved futile.

From these girls was sought their complete working experience by successive years, after leaving the trade school, that information might be gained on such points as these:

1. What types are coming to the trade school for training and how do they correspond to the types already in these trades?
2. What are the requisite qualifications for success and what proportion complete the course of training?
3. What proportion enter their trade and in what length of time do they become self-supporting?
4. What influences determine advancement and success?

For some basis of comparison it was decided to secure the experience record of 100 girls in dressmaking and in the cloth machine-operating trades in Boston. The method by which these should be secured was one for serious consideration. The first attempt was made to secure cases from the educational certificates in the school

offices, all girls of 16 to 21 years being so registered by law. This was soon found impracticable as the sole basis, since the new law of 1913, under which a new system was inaugurated, had been in force only one year, and the types secured by this means proved to be below normal, drifting from industry to industry and from shop to shop.[1] Complete lists of all girls not exceeding 25 years were next taken from pay rolls of typical shops and factories. This method excluded the drifter in most cases, since the girl remaining less than one week did not appear on the pay roll. The lists were supplemented by names secured through other girls, or from people in touch with girls in the sewing trades. Forty-six girls who were under 25 years and were employed in the sewing trades in Worcester were secured through the Worcester Evening Trade School. Through these different methods a group of girls were secured who correspond to a surprising degree in age, education, and wage with the trade-school girls.

A study of the three trade schools to discover their purpose, the needs which they attempt to meet, and the methods by which they are trying to fulfill their aim, and a cursory survey of the industries to see to what extent the school has grasped its problem rounded out the study.

The following chapters therefore seek to show:

1. The problems with which the trade school has been confronted from the standpoint of—
   (*a*) The girl who comes for training.
   (*b*) The industries for which it trains.
2. The specific problems which it has attempted to solve and the extent to which it has succeeded or failed.
3. The conclusions which may be drawn for future development and adjustment.

---

[1] See Table 50, p. 87.

Chapter VII.—Industries for which trade schools train— Concluded.

Power machine sewing trades—Concluded.

Page.
Methods of learning in the trades 230, 231
Cost of teaching in the factory 231, 232
Amount of shifting among factory employees 232, 233
Summary 233
Chapter VIII.—Summary and conclusions 235-242
Appendix A.—Courses and administration of the trade schools for girls in Massachusetts 243-256
Courses in the trade schools 243-246
Courses of departments in the Worcester Trade School 246-253
Dressmaking 247, 248
Power-machine operating 248, 249
Millinery 249, 250
Trade cooking 250
Academic, art, cooking (general) courses, and physical education... 250-253
Administration of girls' trade schools 253-256
Appendix B.—Evening industrial schools for girls 257-269

This study was undertaken in September, 1911, by the Department of Research of the Women's Educational and Industrial Union of Boston, under the direction of Dr. May Allinson, associate director, and with the advice and criticism of Dr. Susan M. Kingsbury, director of the department. The study covered a period of eleven months, seven months being devoted to field work and four months to writing the report. Three fellows, Louise Moore, Edith Gray, and Cora Parkhurst, with two secretaries in the office, constituted the working force. Special recognition should be given Louise Moore for her independent work in planning and presenting the material in Chapter II on The school problem, her analyses of the machine-operating trades (pp. 210 to 233), and for Appendixes A and B.

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 215. WASHINGTON. OCTOBER, 1917.

INDUSTRIAL EXPERIENCE OF TRADE-SCHOOL GIRLS IN MASSACHUSETTS.

CHAPTER I.—INTRODUCTION.

PROBLEM OF TRADE TRAINING FOR GIRLS.

Trade training for girls has proved to be one of the most difficult problems of present-day education. Federal, State, and private reports on industrial conditions under which women work show the need for some kind of more adequate preparation for life.[1] With an appreciation of the significance of these conditions has come a new conception of education: a realization, first, that some sort of education must be developed for those girls who can not be profited by existing forms and, second, that teaching for trades must be undertaken by educators in cooperation with employers.

Naturally, conflicting theories have arisen as to where, when, and how this trade training can best be given. First, some educators and employers insist that it can and should be given only in the factory.[2] Second, some maintain that systematic training can be given only in special trade schools, because training and production on a profit basis are incompatible.[3] Third, others are still debating as to whether this trade training can best be given preliminary to

employment or in the form of continuation schooling, either in part-time day classes or in evening classes.[1] Fourth, still others oppose special industrial schools for the 14 to 16 year old child on the ground that they must either deplete or unnecessarily duplicate the present educational system and tend toward class distinction.[2]

---

[1] Massachusetts. Report of the Commission on Industrial and Technical Education. April, 1906.
National Society for the Promotion of Industrial Education. Reports and bulletins.
United States Bureau of Education, A trade school for girls, Bulletin, 1913, No. 17.
United States Bureau of Labor Statistics publications:
  Bul. No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. Appendix I—A study of the dress and waist industry for the purpose of industrial education, p. 155.
  Bul. No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry: New York City.
  Bul. No. 193. Dressmaking as a trade for women in Massachusetts.
  Report on condition of woman and child wage earners in the United States (S. Doc. No. 645, 61st Cong., 2d sess.). 1910–1912.
  All bulletins in Women in Industry series.
Reports of the Massachusetts Minimum Wage Commission.
Lorinda Perry: Millinery as a trade for women. New York, 1916.
Mary Van Kleeck: Wages in the millinery trade. (In Fourth Report of New York State Factory Investigating Commission, 1915. Vol. II, pp. 361-469.)
Mary Van Kleeck: Women in the bookbinding trade. Russell Sage Foundation, New York, 1913.
Mary Van Kleeck: Artificial-flower makers. Russell Sage Foundation, New York, 1913.

[2] Anna C. Hedges: Wage worth of school training. Teachers' College, Columbia University, New York, 1915.

[3] Florence M. Marshall: Industrial training for women. Bulletin 4, National Society for the Promotion of Industrial Education, October, 1907.

Whether a long or short period of training is required, what proportion of time should be devoted to practical trade work and what to related academic training, and how the academic and trade work can best be combined, are questions still argued. The administrative system by which these schools shall be controlled is another source of controversy and both the unit and dual systems exist in Massachusetts.[3]

Even if an agreement were reached upon the where, when, and how of industrial education, the most perplexing question of all, What shall constitute the basis of trade training—that is, for what trades shall these schools train?—is after ten years still an open question.

GROWTH OF TRADE SCHOOLS FOR GIRLS IN MASSACHUSETTS.

The first so-called trade school for girls in the United States was established by private initiative in New York City in 1902. It was planned to meet local problems and to train girls for the sewing trades which occupy so important a place in that city,[4] and which offer good opportunities for the girl who has sufficient fundamental training to gain entrance. In 1904, the Boston Trade School for Girls was established by private initiative, also giving its main emphasis to training for the custom sewing trades, which occupy a much smaller place in Boston, but still, at that time, presented good openings. After five years' experimentation under private management, both schools were taken over as a part of the public-school system. In 1911, the Worcester and Somerville schools were established, in Worcester as a part of the Independent Industrial Schools and in Somerville[5] as a part of the public-school system. In 1913, the Cambridge Trade School was established as a part of the public-school system.

---

[1] Massachusetts, Board of Education: Special report on the needs and possibilities of part-time education, 1913. Also Mary Van Kleeck: Working girls in evening schools. Russell Sage Foundation, New York, 1914. Also Anna C. Hedges: Wage worth of school training.

[2] John Dewey: Industrial education and democracy, in Survey, Mar. 22, 1913, p. 870. See also David Snedden and John Dewey: Communications on vocational education in New Republic, May 15, 1915, pp. 40-43.

[3] The question of the dual system, in Survey, Jan. 18, 1913, p. 490.

H. E. Miles: Work and citizenship—The Wisconsin experiment in industrial education, in Survey, Feb. 15, 1913, p. 682.

E. H. Fish: Revolution in school control, in Survey, June 21, 1913, p. 407.

[4] Mrs. Mary Schenck Woolman: The making of a girls' trade school. Columbia University Press, New York, 1909.

[5] The Somerville School was changed to the Vocational School for Girls—offering training for home making—in 1913-14.

All the trade schools have been organized on the model of the Manhattan Trade School, giving the main emphasis to the custom sewing trades. But, while the Manhattan Trade School might train and place advantageously any number of girls who applied for training in the custom sewing trades, the Massachusetts trade schools soon found that this opportunity was limited. In Worcester, for instance, only a small proportion of the young girls trained for dressmaking and millinery can utilize their training in a wage-earning capacity because of the limited number of openings in this city. The schools in the different localities, therefore, are gradually being forced to adjust their training to local trade conditions, and to realize certain fundamental facts: First, that there is a fairly constant but very limited demand for young girls with some degree of skill and maturity in the custom sewing trades, and, second, that the school must develop new lines of work for those without special aptitude in the trades originally selected by the school.

NEW QUESTIONS INVOLVED IN INDUSTRIAL EDUCATION.

Trade schools at first met much serious criticism and there was a conscious emphasis by their supporters on their educative value and their development of the girl as a future home maker. After these new schools became established as a recognized part of the school system, a new and more insistent issue was faced—that of the pupils' capacity to meet trade standards. The new emphasis, therefore, is laid on trade efficiency. But since trade efficiency means personal advancement, the two motives are by no means divorced but very intimately connected.

A new and most serious situation, however, now confronts the trade schools for girls, for the sewing trades have undergone a tremendous industrial evolution during the twelve or more years these schools have been training for these trades.

Opportunities for trade-school pupils are decreasing in the custom trades, not only from the standpoint of decreasing numbers employed but also because of the industrial demands for increasing maturity, skill, and experience. The insistent problem of the immediate future is, therefore, twofold: To develop a type of trade training in accordance with the specific industrial needs of each of these custom trades, and to divert the pupils to some extent into other lines of work, so that the number of trained workers turned out shall not exceed the capacity of their trades to provide them employment.

Industrial education thus involves many new questions which are increasingly demanding consideration.

1. A trade school must know the trend and the demands of the trades, (*a*) from the standpoint of numbers that it may not over-

stock the supply, and (*b*) from the standpoint of qualifications of the workers that its pupils may be able to meet trade demands.

2. Trade practice and products which change greatly and without reason in the fashion trades constitute the basis of instruction.

3. A new conception of school administration becomes a necessity, for the trade school must be allowed a large degree of independence, flexibility, and correlation with and adjustment to the industries to which it caters. Its methods, hours and atmosphere must approximate trade rather than school conditions.

4. Since the efficiency of a vocational school is judged by the success of its pupils, the trade school must study the industrial experience of its pupils that it may, on a basis of concrete knowledge, develop and readjust its curriculum to meet the changing needs and conditions.

METHODS AND SCOPE OF THIS SURVEY.

To provide some concrete facts on these many points of debate, this study was undertaken. The main purpose has been to see to what extent the trade school can equip a girl as an efficient producer. To draw fair and intelligent conclusions, we must know:

1. What proportion of the girls complete their trade course—that is, what degree of selection is represented by the girls who utilize their training in a wage-earning capacity?
2. What has been the aim of the school and the methods by which it has sought to prepare the girl for wage earning?
3. What are the processes and conditions of employment in the industries and what demands do they make on their workers?
4. How does the trade-school girl meet these demands in comparison with the girl who has acquired her training in the industry itself?

Because of the comparatively short existence of these schools, it was within reason to attempt a complete survey of the total number who had gone out from the three trade schools, Boston, Worcester and Cambridge, as a basis for conclusion, rather than to employ the more usual sampling method. The records of all girls leaving school were taken from the school files, 2,044 girls leaving the Boston Trade School from September, 1904 to September, 1914, 343 from the Worcester Trade School from September, 1911 to February, 1915, and 113 from the Cambridge Trade School from February, 1913 to February, 1915, making a total of 2,500 trade-school girls.

Since the trade schools make an effort to place their pupils and to keep a record of their subsequent experience, some index was provided as to those using and not using their training in a wage-earning capacity. These records also provided data on the date of birth, previous schooling, date of entering the trade school, course, and usually the father's occupation, taken at the time of registration.

An intensive study of the working experience through personal interviews with all girls who used their training in a wage-earning capacity and all others who attended the trade school nine months or more was determined on for Boston and Worcester, and of the total group from the Cambridge Trade School, since the comparatively small number made this possible. Because the effort has been made to give a complete picture of all girls who used their training, the total number is accounted for in most of the tables, even though there may be no data on some one point, because the girl could not remember this particular item.

In Boston, records were found of 788 who had used their training one week or more and of 135 who had attended the trade school nine months or more but had not used their trade, making a total of 923, or 45.2 per cent of the total number leaving during the school's 10 years' existence. This number was checked from every possible source. Girls from different classes went through the lists and frequently contributed helpful information. All girls visited in their homes were asked for information concerning their classmates and sometimes contributed new names which had not appeared on the trade-school records. Forty-four additional girls whose names were secured in this way were followed up on one clue or another, but were found not to have used their trade. Seventy-four of the 923 could not be located, leaving 849, of whom 744 used their trade and 105 attended the trade school nine months or more but did not use their trade.

The problem was simpler in Worcester because the experience of the school covered only three years. Of a total of 343 girls, 166 had used their trade or attended the trade school nine months or more and all were found and interviewed. In spite of the short period (two years) covered by the Cambridge Trade School, 15 of the total 113 girls could not be located, making 98 girls the basis of study for this school.

Of the total, 2,500 girls, therefore, leaving the three trade schools, 1,202 girls, or 48.1 per cent, were chosen for an intensive study of their working experience, and of these 1,113, or 92.6 per cent, were found and interviewed.

Naturally many difficulties were encountered in securing these "experience" records. Some of the addresses dated 10 years back, and a long trip to a remote suburb sometimes brought the investigator to an empty lot or to a big factory where once may have stood a house. The girls had scattered to all parts of the United States, and a few of the records had to be secured by correspondence, several letters sometimes being required to clear up one fact. One record came from Detroit, another from Austin, Tex., another from New York, another from New Jersey. Names had changed for various

reasons. Mary Smith was reported by a neighbor to have married a Mr. Pistachio, who worked in the Palace of Sweets in Lynn. A letter to Mrs. Pistachio brought no response, and as a last resort, before making the trip, the investigator secured telephone connection with the Palace of Sweets and asked for Mr. Pistachio. The blur of sounds served the investigator well, for the voice at the other end asked, "You wish Mr. Rustaccio?" The investigator, assenting, found that Mr. Rustaccio was the husband of Mary Smith and received a hearty invitation to come to-morrow afternoon at 3 o'clock and she would be sure to be at home.

Maria Martinucci was sought far and near. Neighbors, teachers, settlement workers in the neighborhood were interviewed. Tracer letters were sent to no avail. One day another trade-school girl mentioned that Maria was working at Madame X's. The investigator hurried to the shop and was met with the statement that no such person ever worked there. "Ask Madame X," insisted the investigator, "if she knows her." Madame came out and, after listening to the story, said, "Oh, you must mean Mary Martin." Mary Martin was called out and proved to be Maria Martinucci, the trade-school girl.

Clues no more definite than "I don't know where she lives, but she is cashier in ———, in the grocery department on the fifth floor, right opposite the meat"; or "Ask the undertaker on the corner; he buried her brother last year," brought the investigator in touch with girls from whom the trade school had had no information for years. The most difficult situation to surmount was occasioned by precautionary measures against being traced by bill collectors. In several cases the investigator secured certain information of a girl but could not personally reach her. "Oh, she's a friend of mine; I wouldn't put a collector on her track," was the reply to inquiries and all efforts to locate her proved futile.

From these girls was sought their complete working experience by successive years, after leaving the trade school, that information might be gained on such points as these:

1. What types are coming to the trade school for training and how do they correspond to the types already in those trades?
2. What are the requisite qualifications for success and what proportion complete the course of training?
3. What proportion enter their trade and in what length of time do they become self-supporting?
4. What influences determine advancement and success?

For some basis of comparison it was decided to secure the experience record of 100 girls in dressmaking and in the cloth machine-operating trades in Boston. The method by which these should be secured was one for serious consideration. The first attempt was made to secure cases from the educational certificates in the school

offices, all girls of 16 to 21 years being so registered by law. This was soon found impracticable as the sole basis, since the new law of 1913, under which a new system was inaugurated, had been in force only one year, and the types secured by this means proved to be below normal, drifting from industry to industry and from shop to shop.[1] Complete lists of all girls not exceeding 25 years were next taken from pay rolls of typical shops and factories. This method excluded the drifter in most cases, since the girl remaining less than one week did not appear on the pay roll. The lists were supplemented by names secured through other girls, or from people in touch with girls in the sewing trades. Forty-six girls who were under 25 years and were employed in the sewing trades in Worcester were secured through the Worcester Evening Trade School. Through these different methods a group of girls were secured who correspond to a surprising degree in age, education, and wage with the trade-school girls.

A study of the three trade schools to discover their purpose, the needs which they attempt to meet, and the methods by which they are trying to fulfill their aim, and a cursory survey of the industries to see to what extent the school has grasped its problem rounded out the study.

The following chapters therefore seek to show:

1. The problems with which the trade school has been confronted from the standpoint of—

(*a*) The girl who comes for training.

(*b*) The industries for which it trains.

2. The specific problems which it has attempted to solve and the extent to which it has succeeded or failed.

3. The conclusions which may be drawn for future development and adjustment.

---

[1] See Table 50, p. 87.

CHAPTER II.—THE SCHOOL PROBLEM.

THE SCHOOL.

The leaders in the movement to establish trade schools for girls, an experiment in education begun outside the regularly established school system, found it necessary very early to formulate a statement of their aim. This, briefly stated, is to "give girls an education that will fit them for industrial work as distinguished from office work and teaching."[a] That the public desires this type of education is proved by the adoption of the Boston Trade School for Girls by the Boston School Committee and the Massachusetts State Board of Education, and by the founding of similar schools in the cities of Worcester and Cambridge.

GROWTH OF ENROLLMENT IN TRADE SCHOOLS.

The action of these three cities seems to have been justified by the number of girls who have taken advantage of the opportunity thus presented. The growth in membership of the trade schools as compared with the growth of the other schools under public management is striking. In 1905 the enrollment in the Boston day schools

TABLE 1.—RELATIVE INCREASE IN ENROLLMENT IN TRADE SCHOOLS AND OTHER PUBLIC SCHOOLS IN BOSTON AND WORCESTER, BY YEARS, 1906 TO 1914.

Year.	Boston.						Worcester.					
	Per cent of increase in enrollment in—											
	Day schools.[1]		High and normal schools.[1]		Trade school for girls.[2]		Day schools.[3]		High schools.[3]		Trade school for girls.[4]	
	Over preceding year.	Over 1905.	Over preceding year.	Over 1905.	Over preceding year.	Over 1905.	Over preceding year.	Over 1912.	Over preceding year.	Over 1912.	Over preceding year.	Over 1912.
1906	2.2	2.2	4.2	4.2	14.0	14.0						
1907	1.2	3.4	1.6	5.9	5.4	20.2						
1908	2.0	5.5	6.7	13.0	63.5	96.5						
1909	2.9	8.6	20.9	36.6	58.9	212.3						
1910	[5].2	8.3	12.9	54.2	[5]23.6	138.6						
1911	[5]1.1	7.2	9.6	69.1	25.0	198.2						
1912	3.6	11.0	7.7	82.0	15.3	243.9						
1913	1.2	12.3	1.5	84.8	28.6	342.1	2.1	2.1	7.4	7.4	66.7	66.7
1914	3.1	15.8	5.1	94.3	17.9	421.1	4.9	7.1	5.6	13.4	21.8	102.9

[1] From annual reports of the Boston School Committee, 1905 to 1914.

[2] From annual reports of the Boston Trade School for Girls, 1905 to 1909; annual reports of the Boston School Committee, 1910 to 1914.

[3] From annual reports of the Worcester Public Schools, 1912 to 1914.

[4] From data furnished by the Worcester Trade School for Girls.

[5] Decrease.

---

[a] Worcester, Report of Trustees of Independent Industrial Schools for the year ending June 30, 1911, p. 622.

was 102,880, in the high and normal schools 8,115, and in the trade school for girls 114. In 1912, when the Worcester Trade School for Girls was opened, the enrollment in the Worcester day schools was 23,539, in the high schools 3,101, and in the trade school 102. Table 1 shows the relative increase in enrollment for these various schools, giving both the increase each year over the enrollment of the preceding year and the increase over the year in which the trade schools were founded, respectively.

In Boston the average annual increase in the total enrollment of the day schools from 1905 to 1914, inclusive, was 1.7 per cent, in the high and normal schools, 7.9 per cent, and in the trade school for girls, 22.8 per cent. That is, the enrollment in the trade school has increased about thirteen times as rapidly as that of all the public day schools, and almost three times as fast as that of the high and normal schools. During the whole period, while the enrollment in all day schools has increased by a little less than one-sixth and the enrollment in the high and normal schools has not quite doubled, the enrollment in the trade school for girls has more than quadrupled. The trade school in Worcester has had a far shorter period of growth, but is showing the same tendency to a rapid increase. During the first year of its history its enrollment increased two-thirds, and the next year a little more than one-fifth. The total number of pupils registered in 1914 was a little more than twice the number enrolled in 1912. Meanwhile, the day schools had increased their numbers by 7.1 per cent and the high schools by 13.4 per cent.

Striking as these comparative percentages of increase are, they do not tell the whole story, since the actual enrollment has not at any time since the first year represented all who wished to enter the trade schools. Since then the schools have been unable to accommodate all applicants, so the number has been limited and pupils are allowed to enter as vacancies occur, in the order of their application. The consistently rapid growth of the trade schools for girls shows the value set upon this sort of training by the community, the girls, and their parents.

NONCOMPETITIVE CHARACTER OF TRADE AND ORDINARY SCHOOLS.

The very rapid increase in the trade-school enrollment naturally raises the question, "Are these schools competing with ordinary high and grammar schools or are they satisfying a need not previously met by other educational institutions?" Certainly they are not competing on the same terms, owing to the great difference between the trade-school courses and those offered in any other kind of schools. There is good reason for thinking, however, that they are not competing at all. A comparison between the rate of increase shown in the preceding table for the high schools and the trade schools does not indicate that the high schools have suffered from the establishment of the trade schools. In both Boston and Worcester the percentage of increase in the high schools since the establishment of the trade schools has been normal, the increase being in Boston about five times as rapid as in all schools and in Worcester about twice as rapid. Moreover, in the years 1908 and 1909, when the Boston Trade School showed the largest increases, 63.5 per cent and 58.9 per cent, respectively, the high school increases, also, were unusually large (6.7 per cent in 1908 and 20.9 per cent in 1909).[1] As to competition with the grammar schools, the age of the trade-school pupils seems to show that if it exists at all it is too small to have any importance. Girls may not enter the trade schools until they are 14 years of age, and in the Boston school two-thirds of the total number of pupils enrolled since its opening have been over this age. (See Table 5.) But in June, 1914, only 1.9 per cent of all pupils in the elementary schools of Boston were over 14, and in 1913 the proportion was 3.9 per cent.[2] Evidently the field of possible competition between grammar and trade school is very limited.

Another indication that the trade schools reach a type of girl not attracted to the regular school, or, at least, not held by it, is found in the rather large proportion of the pupils in both the Boston and the Worcester trade schools who had been out of the regular schools for some time before entering the trade schools. In Boston 849 girls and in Worcester 166 were visited. The following table shows how many of these had been out of school for four months or more before entering the trade school:

TABLE 2.—INTERVAL BETWEEN LEAVING REGULAR PUBLIC SCHOOLS AND ENTERING TRADE SCHOOL, FOR 164 GIRLS IN BOSTON AND 45 IN WORCESTER.

Time intervening.	Number of girls out of school specified length of time before entering—		Total.
	Boston Trade School.	Worcester Trade School.	
4 and under 8 months	58	17	75
8 and under 12 months	34	6	40
12 and under 16 months	28	13	41
16 and under 20 months	11	3	14
20 and under 24 months	2	1	3
2 and under 3 years	11	3	14
3 and under 4 years	10	2	12
4 and under 5 years	5	....	5
5 years or more	5	....	5
Total	164	45	209

It appears from this that in Boston nearly one-fifth of the girls visited (18.1 per cent), and in Worcester more than one-fourth

---

[1] The rapid increase in the number of pupils in the high schools of Boston in 1909 was partly due to changing the number of grades in the grammar school from nine to eight, thus throwing into the high school the pupils of one grade which had previously been included in the grammar course.

[2] Report of the Boston School Committee, 1913, Document 9, p. 17; 1914, Document 6, p. 15.

(27.1 per cent) had been out of the regular public schools from four months to nearly four years before entering the trade schools. If the girls visited are representative of the whole body of pupils—and there is no reason to suppose that they are not—it is evident that there is a considerable proportion of the trade-school pupils for whom the question of competition between the two kinds of schools could not arise; they had definitely left one before planning to enter the other.

When the trade schools were started it was with the purpose of reaching the kind of girl who did not wish to attend high school, or who could not afford the time for it, and this purpose has been borne in mind throughout. In both the Boston and the Worcester trade schools it is customary to send back to the grammar and high schools all pupils who their instructors have reason to think will do better in academic than in trade work. In Worcester 7.3 [1] per cent of all the pupils leaving the trade schools for any reason returned to other schools. On the Boston records 11.6 [1] per cent are set down as having returned to school.

Summing up the situation, then, such information as is available seems to show that the trade school is not a competitor of the regular grammar and high schools, because: (1) The character of the work done is so different from that carried on in other public schools that it would scarcely attract children likely to make a success of the ordinary school studies. It is primarily attractive to the girl whose chief interest is to earn money as soon as possible, but who is willing and able to give a short time for preparation. (2) The pupils do not come in any large measure from those of ordinary grammar school age. (3) No change in the percentage of increase in high and normal schools can be discovered in the 10 years subsequent to the founding of the trade school in Boston. (4) Many of the pupils (20.6 per cent of those visited in Boston and Worcester) had definitely left the regular public schools before entering the trade schools. (5) The trade schools have sent back to grammar and high school 10.5 per cent of the whole number of pupils leaving the trade schools. The increase in the enrollment seems to indicate, therefore, that the trade schools are filling a need not hitherto met in the system of education, and that instead of competing with the other schools they supplement them, giving a training which the regular schools can not supply but for which there is a real demand.

COURSES OFFERED IN THE DIFFERENT TRADE SCHOOLS.

The courses offered in the trade schools differ essentially from those given in any other educational institution, both in object and in method of presentation. The selection of the trades to be taught in the several communities has been a matter of much difficulty.

---

[1] See Table 28, p. 45.

The bases of selection may be three: First, a general survey of trade opportunities for women in the city, including occupations for which women are generally supposed to be best adapted, particularly those connected with the making of clothing and the preparation of food; second, a scientific survey of a community to determine which lines of work offer the best opportunities; and, third, the experience of the school itself, resulting in the modification of old courses and the introduction of new ones, in accordance with the demands of the public with which the school comes in contact.

Boston followed the first of these plans. From a study of such data as were available it was decided that "clothing trades offer women the greatest opportunities." [1] A brief survey of the dressmaking, millinery, and ready-made clothing industries was then made to determine the content of the proposed courses. Sewing only was offered in the summer course given in 1904,[2] and millinery and power-machine operating on cloth were added in the fall. In addition to these three trades, selected on the basis of the first general survey, training in three other trades is now offered, as a result of the experience of the school. Power-machine operating on straw hats has been taught since 1905–6,[3] and trade cooking and design were first offered in 1912–13.[4]

In the other three cities the second plan of selection was followed. The board of trustees of the Independent Industrial Schools in Worcester and the superintendents of schools in Cambridge and Somerville were instrumental in securing a survey of their cities before the girls' trade schools were established.[5] Dressmaking, millinery, and power-machine operating on cloth have been taught in Worcester since the opening of the school; trade cooking was introduced in September, 1914. In Cambridge, at first, dressmaking, cooking, and millinery were offered. The course in millinery was discontinued in October, 1914, because the management believed that, as a trade, it offered too little opportunity. In Somerville, dressmaking and millinery were taught in 1911–12. The following year, the household arts side of the training received more emphasis than the trade side, and in 1913–14 the name of the school was changed from the Trade School for Girls to the Vocational School for Girls. Dressmaking, millinery, and cooking are taught as home-making vocations with trade standards.

In 1914–15, then, the Boston Trade School for Girls offered six courses, dressmaking, millinery, power-machine operating on cloth, power-machine operating on straw hats, catering, and design; the Worcester school trained girls in four subjects—dressmaking, millinery, power-machine operating on cloth, and trade cooking. In Cambridge, instruction was offered in dressmaking and in trade cooking.

---

[1] Fifth Annual Report of the Boston Trade School for Girls, 1909, p. 11.

[2] First Annual Report of the Boston Trade School for Girls, 1905, pp. 6, 7.

[3] Second Annual Report of the Boston Trade School for Girls, 1906, p. 14.

[4] Trade School Bulletin IV, April, 1912; Trade School Bulletin VI, May, 1913.

[5] Department of Research, Women's Educational and Industrial Union: A trade school for girls, United States Bureau of Education, Bulletin, 1913, No. 17, p. 9.

Besides these trade courses, of which each girl selects one, supplementary courses in cooking, art, academic branches, and physical training are required of all pupils. The Boston Trade School, ever since it was founded, has required its pupils to take design and physical training.[1] The course in cooking, with household arts intent, has been obligatory since the summer of 1905, and academic work since 1906–7.[2] The other schools, founded since the Boston Trade School, and profiting by its experience, have had supplementary work since the beginning.

RELATIVE DEMAND FOR THE DIFFERENT COURSES.

The number of girls enrolled in each course in the several schools since their foundation shows where the emphasis of the teaching has been placed. The following table shows the distribution of the 2,500 pupils among the courses offered:

TABLE 3.—NUMBER AND PER CENT OF GIRLS TRAINED IN EACH SPECIFIED TRADE IN BOSTON, WORCESTER, AND CAMBRIDGE TRADE SCHOOLS.

Course.	Girls trained in specified trades.							
	Number.				Per cent.[1]			
	Boston.	Worcester.	Cambridge.	Total.	Boston.	Worcester.	Cambridge.	Total.
Dressmaking	1,255	224	78	1,557	62.0	66.3	69.0	62.9
Millinery	426	53	21	500	21.0	15.7	18.6	20.2
Power-machine operating on—								
Cloth	178	61		239	8.8	18.0		9.7
Straw hats	137			137	6.8			5.5
Trade cooking	19		14	33	.9		12.4	1.3
Design	10			10	.5			.4
Not reported	19	5		24				
Total	2,044	343	113	2,500	100.0	100.0	100.0	100.0

[1] Based on the number of girls whose course was reported.

It will be seen that of all the girls who have gone out from the three trade schools, almost two-thirds (62.9 per cent) have taken dressmaking and one-fifth have been trained in millinery. That is, four-fifths of the girls (83.1 per cent) have been trained in the two custom or hand sewing trades, while only one-fifth have taken advantage of the other four trades offered. These proportions have been nearly the same in all the schools, even in Boston, which offers the greatest variety of other courses. Worcester shows a much larger percentage than Boston of girls learning power-machine operating on cloth, and Cambridge has relatively a large proportion who have chosen trade cooking, but in each of the three cities more than 80 per cent of the pupils have enrolled in the two hand-sewing trades.

---

[1] First Annual Report of the Boston Trade School for Girls, 1905, p. 9.

[2] Third Annual Report of the Boston Trade School for Girls, 1907, p. 14.

A study of the enrollment in 1915 shows that this situation has not changed. The following table, compiled from data furnished by the three trade schools, shows the number enrolled in the different courses in January, 1915:

TABLE 4.—NUMBER AND PER CENT OF PUPILS ENROLLED IN SPECIFIED COURSES IN BOSTON, WORCESTER, AND CAMBRIDGE TRADE SCHOOLS AT THE TIME OF THE INVESTIGATION, JANUARY, 1915.

Course.	Girls enrolled in specified trades.							
	Number.				Per cent.[1]			
	Boston.	Worcester.	Cambridge.	Total.	Boston.	Worcester.	Cambridge.	Total.
Dressmaking	343	108	82	533	71.0	70.6	87.2	73.0
Millinery	70	15	....	85	14.5	9.8	....	11.6
Power-machine operating on—								
Cloth	26	18	....	44	5.4	11.8	....	6.0
Straw hats	30	....	....	30	6.2	....	....	4.1
Trade cooking	14	12	12	38	2.9	7.8	12.8	5.2
Not reported	....	....	2	2	....	....	....	....
Total	483	153	96	732	100.0	100.0	100.0	100.0

[1] Based on the number of girls whose course was reported.

The proportions shown here in the two custom sewing trades are curiously close to those shown in the preceding table. In all three cities millinery has lost ground and dressmaking has gained, but these two trades still account for over four-fifths of the total enrollment. Of the other trades offered, cooking is the only one that shows a gain, and its increase is less than half of that shown by dressmaking.

There is little doubt that these proportions fail to correspond to the trade demands in any of the three cities. The emphasis on training for the custom sewing trades is due not so much to the needs of the industries as to the attitude of the schools and their patrons. One important reason for the numbers found in these courses is the disfavor in which factory work is held. Power-machine operating leads to factory work, which the girls do not wish to enter. This dislike is probably due mainly to misconceptions and lack of knowledge of conditions in the modern clothing factory, which compares favorably with the custom shop in sanitary conditions, wage opportunities, and working conditions in general. Again, dressmaking and millinery, occupations which have always been followed by women, have been offered as trade courses since the schools were opened, and consequently training in these subjects has been more closely studied and is organized on a more careful analysis of processes than is the case with some of the newer trades. The schools therefore tend to make these courses more attractive to the pupils. Moreover, dressmaking and millinery can always be utilized by the girl at home, and the public, the school, and the pupil are likely to overemphasize this phase, forgetting that the function of a trade school is to fit for a trade, and that processes such as cutting and fitting, which are essential for home use, are not given except to the more mature pupils who return for advanced training, since they would not be of immediate value to the young beginner in the shop.

THE PUPILS AND THE SCHOOL.

AGE AND PREVIOUS SCHOOLING OF PUPILS ENTERING THE TRADE SCHOOLS.

Although the trade schools have a clearly defined aim and a fairly simple program of activities, they face a difficult problem in adjusting this program to the varied age and educational acquirements of their

TABLE 5.—AGE AT ENTRANCE OF GIRLS ENTERING THE BOSTON, WORCESTER, AND CAMBRIDGE TRADE SCHOOLS AND THE VOCATIONAL SCHOOL OF SOMERVILLE.

NUMBER.

Age at entering trade school.	Pupils of specified age entering—						
	Boston Trade School.			Worcester Trade School.	Cambridge Trade School.	Total entering trade schools.	Somerville Vocational School.
	1904–1909	1909–1914 [1]	Total.				
Under 15 years	289	392	681	143	41	865	52
15 and under 16 years	236	354	590	93	32	715	50
16 and under 17 years	157	240	397	56	21	474	38
17 and under 18 years	77	145	222	24	6	252	16
18 and under 19 years	26	43	69	13	7	89	8
19 and under 20 years	12	22	34	6	3	43	3
20 and under 21 years	4	9	13	2	1	16	2
21 years and over	5	20	25	1	1	27	2
Not reported	2	11	13	5	1	19	1
Total	808	1,236	2,044	343	113	2,500	172

PER CENT OF EACH SPECIFIED AGE.[2]

Age at entering trade school.	1904–1909	1909–1914	Total.	Worcester Trade School.	Cambridge Trade School.	Total entering trade schools.	Somerville Vocational School.
Under 15 years	35.9	32.0	33.5	42.3	36.6	34.9	30.4
15 and under 16 years	29.3	28.9	29.0	27.5	28.6	28.8	29.2
16 and under 17 years	19.5	19.6	19.5	16.6	18.8	19.1	22.2
17 and under 18 years	9.6	11.8	10.9	7.1	5.4	10.2	9.4
18 and under 19 years	3.2	3.5	3.4	3.8	6.3	3.6	4.7
19 and under 20 years	1.5	1.8	1.7	1.8	2.7	1.7	1.7
20 and under 21 years	.5	.7	.6	.6	.9	.6	1.2
21 years and over	.6	1.6	1.2	.3	.9	1.1	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

---

[1] From July, 1904, to August, 1909, inclusive, the Boston Trade School was under private management and from September, 1909, was a part of the public-school system.

[2] Based on number of pupils whose age at entering trade school was reported.

pupils. The only limitation on admission to the trade schools made by the State board of education relates to age. Up to its capacity each school admits all applicants who are 14 years old and under 25.[1] This results in a condition which does not exist in any other part of the day-school system. The trade-school pupils range in age from 14 to 20 and over and in previous schooling from those who have never gone beyond the third grade to high-school graduates. Naturally this wide variation in age and acquirements increases materially the difficulty of adapting the courses to the needs of the pupils. Table 5 shows the classification by age at entrance of the pupils of the three trade schools and the one vocational school.

Considering the whole group who have entered the trade schools, it appears that over one-third were under 15 at the time of entrance, and that only in Worcester does this proportion differ much in the individual schools. The next largest group is also the next most youthful group, the girls between 15 and 16 years forming nearly three-tenths of the total. In other words, more than three-fifths have been under 16 when they entered the trade schools. Nearly three-tenths have been 16 but under 18, while those aged 18 or over form only 7 per cent of the whole.

It is interesting to notice that a trade school seems to attract a younger group when first opened than later. During the first five years of the Boston Trade School's existence, 65.2 per cent of the pupils were under 16 when they entered; during the next five years this proportion sank to 60.9 per cent. Again, 15.4 per cent of those entering from 1904 to 1909 against 19.4 per cent of those entering from 1909 to 1914 were 17 or over at entrance. In Worcester the trade school was opened in 1911 and in Cambridge in 1913, so that both these schools may be regarded as still in their first period. In Worcester 69.8 per cent and in Cambridge 65.2 per cent of the pupils have entered before they were 16. These proportions correspond very closely to those of the Boston Trade School up to 1909, as do also the 13.6 per cent in Worcester and the 16.2 per cent in Cambridge entering at 17 or over.

From a school point of view this variation in age makes an extremely difficult situation, since pupils of 14 and 16 must be taught in the same classes. Girls of 16 can be taught with older girls more easily than with younger girls. The 36.3 per cent of the pupils who enter when they are 16 or over present a serious problem for adjustment on the part of the school.

The variation in previous schooling at time of entrance is even greater than the variation in age. The following table shows the extent of variation in this respect:

---

[1] Massachusetts Acts of 1911, ch. 471, sec. 3.

TABLE 6.—NUMBER AND PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE SCHOOL PUPILS HAVING EACH SPECIFIED AMOUNT OF PREVIOUS SCHOOLING.

Previous schooling.	Pupils with specified schooling.											
	Number.						Per cent.[1]					
	Boston Trade School.			Worcester Trade School.	Cambridge Trade School.	Total.	Boston Trade School.			Worcester Trade School.	Cambridge Trade School.	Total.
	1904–1909	1909–1914	Total.				1904–1909	1909–1914	Total.			
GRAMMAR SCHOOL.												
Third grade	1	2	3	......	......	3	0.1	0.2	0.1	......	......	0.1
Fourth grade	4	16	20	4	4	28	.5	1.3	1.0	1.2	3.6	1.1
Fifth grade	26	21	47	10	4	61	3.2	1.7	2.3	3.0	3.6	2.5
Sixth grade	54	71	125	31	14	170	6.7	5.8	6.2	9.3	12.7	6.9
Seventh grade	124	143	267	65	35	367	15.4	11.7	13.2	19.4	31.8	14.8
Eighth grade	133	156	289	75	12	376	16.5	12.8	14.3	22.4	10.9	15.2
Ninth grade	28	44	72	25	1	98	3.5	3.6	3.6	7.5	.9	4.0
Graduate	286	432	718	31	25	774	35.4	35.4	35.4	9.3	22.7	31.3
Foreign	1	14	15	......	......	15	.1	1.1	.7	......	......	.6
Unclassified[2]	12	57	69	5	1	75	1.5	4.7	3.4	1.5	.9	3.0
Total, grammar school	669	956	1,625	246	96	1,967	82.9	78.3	80.1	73.4	87.3	79.5
SECONDARY SCHOOLS.												
High school:												
First year	83	147	230	51	6	287	10.3	12.0	11.3	15.2	5.5	11.6
Second year	38	56	94	26	6	126	4.7	4.6	4.6	7.8	5.5	5.1
Third year	5	21	26	7	......	33	.6	1.7	1.3	2.1	......	1.3
Fourth year	......	3	3	1	......	4	......	.2	.1	.3	......	.2
Graduate	7	22	29	2	2	33	.9	1.8	1.4	.6	1.8	1.3
Unclassified	2	13	15	1	......	16	.2	1.1	.7	.3	......	.6
Total, high school	135	262	397	88	14	499	16.7	21.5	19.6	26.3	12.7	20.2
Technical school	3	3	6	1	......	7	.4	.2	.3	.3	......	.3
Total, secondary schools	138	265	403	89	14	506	17.1	21.7	19.9	26.6	12.7	20.5
Schooling not reported	1	15	16	8	3	27	......	......	......	......	......	......
Grand total	808	1,236	2,044	343	113	2,500	100.0	100.0	100.0	100.0	100.0	100.0

[1] Based on number of pupils whose previous schooling was reported.
[2] Including ungraded schools, special schools, country schools, etc.

It will be seen that 51.8 per cent of the 2,500 girls considered have been grammar-school graduates, and 20.5 per cent of the 2,500 have had some high or technical school training. As representing the extremes, 10.6 per cent have gone no further than the sixth grade and 1.3 per cent have graduated from the high school. In so far as this variation means simply a difference in the amount of information acquired, it presents no serious difficulty to the trade school, since the trade training calls for a kind of power very different from that developed by mere memory training. But since the difference means also a difference in the development of mental capacity, the school is confronted by the problem of adjusting its course to pupils varying both in development and in natural ability to grasp it. It is not merely a question of allowing one pupil to progress more rapidly than another; some pupils can actually be trained to a higher degree of skill in each process than can others.

It has been seen that the tendency of the trade school, as it becomes better established, is to attract a group slightly more mature at entrance. It also seems to draw a group better prepared from the standpoint of previous education. Of the pupils entering the Boston Trade School during its first five years, 47.5 per cent were not graduates of the grammar schools; during its second five years only 42.9 per cent of its pupils had entered without first graduating from the grammar schools. The proportion of girls who had attended high or technical school increased from 17.1 per cent in the first period to 21.7 per cent in the second.[1]

Naturally in a group as young and as untrained as the majority of these pupils are on their entrance to the trade schools, there are many who have no real taste for the kind of instruction provided, and who come with no very clear idea of what they wish to get or what use they will make of their training, if they persevere long enough to get it. In Cambridge the whole group of trade-school girls were asked why they had come to the school, and the various reasons were grouped under the following heads:

TABLE 7.—NUMBER AND PER CENT OF GIRLS ENTERING THE CAMBRIDGE TRADE SCHOOL FOR EACH SPECIFIED REASON.

Reason for entering trade school.	Girls giving specified reason.	
	Number.	Per cent.[1]
Wanted a trade	28	31.1
Liked to sew	24	26.7
Wanted the training for home use	3	3.3
Too large for her grade, disliked school	20	22.2
Ill health	5	5.6
Advised to by employer	1	1.1
Too young to go to work	1	1.1
Did not know what else to do, friends were there	8	8.9
Not reported	[2]23	....
Total	113	100.0

[1] Based on number who reported reason for entering school.
[2] Of these 15 could not be located.

The girls who wanted a trade or liked sewing or wanted the training to use at home all presumably brought to the work of the school a definite purpose and interest which would make it probable that they would benefit by the courses given, and they constituted a little more than three-fifths (61.1 per cent) of those reporting. Over one-fifth came because they could not adapt themselves to

---

[1] The number of grammar grades was decreased from nine to eight, which resulted in the entrance of many pupils to high school, not because they wanted to go to high school but because they were under 14 and must attend some school.

(27.1 per cent) had been out of the regular public schools from four months to nearly four years before entering the trade schools. If the girls visited are representative of the whole body of pupils—and there is no reason to suppose that they are not—it is evident that there is a considerable proportion of the trade-school pupils for whom the question of competition between the two kinds of schools could not arise; they had definitely left one before planning to enter the other.

When the trade schools were started it was with the purpose of reaching the kind of girl who did not wish to attend high school, or who could not afford the time for it, and this purpose has been borne in mind throughout. In both the Boston and the Worcester trade schools it is customary to send back to the grammar and high schools all pupils who their instructors have reason to think will do better in academic than in trade work. In Worcester 7.3 [1] per cent of all the pupils leaving the trade schools for any reason returned to other schools. On the Boston records 11.6 [1] per cent are set down as having returned to school.

Summing up the situation, then, such information as is available seems to show that the trade school is not a competitor of the regular grammar and high schools, because: (1) The character of the work done is so different from that carried on in other public schools that it would scarcely attract children likely to make a success of the ordinary school studies. It is primarily attractive to the girl whose chief interest is to earn money as soon as possible, but who is willing and able to give a short time for preparation. (2) The pupils do not come in any large measure from those of ordinary grammar school age. (3) No change in the percentage of increase in high and normal schools can be discovered in the 10 years subsequent to the founding of the trade school in Boston. (4) Many of the pupils (20.6 per cent of those visited in Boston and Worcester) had definitely left the regular public schools before entering the trade schools. (5) The trade schools have sent back to grammar and high school 10.5 per cent of the whole number of pupils leaving the trade schools. The increase in the enrollment seems to indicate, therefore, that the trade schools are filling a need not hitherto met in the system of education, and that instead of competing with the other schools they supplement them, giving a training which the regular schools can not supply but for which there is a real demand.

COURSES OFFERED IN THE DIFFERENT TRADE SCHOOLS.

The courses offered in the trade schools differ essentially from those given in any other educational institution, both in object and in method of presentation. The selection of the trades to be taught in the several communities has been a matter of much difficulty.

---

[1] See Table 28, p. 45.

The bases of selection may be three: First, a general survey of trade opportunities for women in the city, including occupations for which women are generally supposed to be best adapted, particularly those connected with the making of clothing and the preparation of food; second, a scientific survey of a community to determine which lines of work offer the best opportunities; and, third, the experience of the school itself, resulting in the modification of old courses and the introduction of new ones, in accordance with the demands of the public with which the school comes in contact.

Boston followed the first of these plans. From a study of such data as were available it was decided that "clothing trades offer women the greatest opportunities." [1] A brief survey of the dressmaking, millinery, and ready-made clothing industries was then made to determine the content of the proposed courses. Sewing only was offered in the summer course given in 1904,[2] and millinery and power-machine operating on cloth were added in the fall. In addition to these three trades, selected on the basis of the first general survey, training in three other trades is now offered, as a result of the experience of the school. Power-machine operating on straw hats has been taught since 1905-6,[3] and trade cooking and design were first offered in 1912-13.[4]

In the other three cities the second plan of selection was followed. The board of trustees of the Independent Industrial Schools in Worcester and the superintendents of schools in Cambridge and Somerville were instrumental in securing a survey of their cities before the girls' trade schools were established.[5] Dressmaking, millinery, and power-machine operating on cloth have been taught in Worcester since the opening of the school; trade cooking was introduced in September, 1914. In Cambridge, at first, dressmaking, cooking, and millinery were offered. The course in millinery was discontinued in October, 1914, because the management believed that, as a trade, it offered too little opportunity. In Somerville, dressmaking and millinery were taught in 1911-12. The following year, the household arts side of the training received more emphasis than the trade side, and in 1913-14 the name of the school was changed from the Trade School for Girls to the Vocational School for Girls. Dressmaking, millinery, and cooking are taught as home-making vocations with trade standards.

In 1914-15, then, the Boston Trade School for Girls offered six courses, dressmaking, millinery, power-machine operating on cloth,

---

[1] Fifth Annual Report of the Boston Trade School for Girls, 1909, p. 11.

[2] First Annual Report of the Boston Trade School for Girls, 1905, pp. 6, 7.

[3] Second Annual Report of the Boston Trade School for Girls, 1906, p. 14.

[4] Trade School Bulletin IV, April, 1912; Trade School Bulletin VI, May, 1913.

[5] Department of Research, Women's Educational and Industrial Union: A trade school for girls, United States Bureau of Education, Bulletin, 1913, No. 17, p. 9.

nearly the same in all the schools, even in Boston, which offers the greatest variety of other courses. Worcester shows a much larger percentage than Boston of girls learning power-machine operating on cloth, and Cambridge has relatively a large proportion who have chosen trade cooking, but in each of the three cities more than 80 per cent of the pupils have enrolled in the two hand-sewing trades.

A study of the enrollment in 1915 shows that this situation has not changed. The following table, compiled from data furnished by the three trade schools, shows the number enrolled in the different courses in January, 1915:

TABLE 4.—NUMBER AND PER CENT OF PUPILS ENROLLED IN SPECIFIED COURSES IN BOSTON, WORCESTER, AND CAMBRIDGE TRADE SCHOOLS AT THE TIME OF THE INVESTIGATION, JANUARY, 1915.

Course.	Girls enrolled in specified trades.							
	Number.				Per cent.[1]			
	Boston.	Worcester.	Cambridge.	Total.	Boston.	Worcester.	Cambridge.	Total.
Dressmaking	343	108	82	533	71.0	70.6	87.2	73.0
Millinery	70	15	....	85	14.5	9.8	....	11.6
Power-machine operating on—								
Cloth	26	18	....	44	5.4	11.8	....	6.0
Straw hats	30	....	....	30	6.2	....	....	4.1
Trade cooking	14	12	12	38	2.9	7.8	12.8	5.2
Not reported	....	....	2	2	....	....	....	....
Total	483	153	96	732	100.0	100.0	100.0	100.0

[1] Based on the number of girls whose course was reported.

The proportions shown here in the two custom sewing trades are curiously close to those shown in the preceding table. In all three cities millinery has lost ground and dressmaking has gained, but these two trades still account for over four-fifths of the total enrollment. Of the other trades offered, cooking is the only one that shows a gain, and its increase is less than half of that shown by dressmaking.

There is little doubt that these proportions fail to correspond to the trade demands in any of the three cities. The emphasis on training for the custom sewing trades is due not so much to the needs of the industries as to the attitude of the schools and their patrons. One important reason for the numbers found in these courses is the disfavor in which factory work is held. Power-machine operating leads to factory work, which the girls do not wish to enter. This dislike is probably due mainly to misconceptions and lack of knowledge of conditions in the modern clothing factory, which compares favorably with the custom shop in sanitary conditions, wage opportunities, and working conditions in general. Again, dressmaking and millinery, occupations which have always been followed by women, was 102,880, in the high and normal schools 8,115, and in the trade school for girls 114. In 1912, when the Worcester Trade School for Girls was opened, the enrollment in the Worcester day schools was 23,539, in the high schools 3,101, and in the trade school 102. Table 1 shows the relative increase in enrollment for these various schools, giving both the increase each year over the enrollment of the preceding year and the increase over the year in which the trade schools were founded, respectively.

In Boston the average annual increase in the total enrollment of the day schools from 1905 to 1914, inclusive, was 1.7 per cent, in the high and normal schools, 7.9 per cent, and in the trade school for girls, 22.8 per cent. That is, the enrollment in the trade school has increased about thirteen times as rapidly as that of all the public day schools, and almost three times as fast as that of the high and normal schools. During the whole period, while the enrollment in all day schools has increased by a little less than one-sixth and the enrollment in the high and normal schools has not quite doubled, the enrollment in the trade school for girls has more than quadrupled. The trade school in Worcester has had a far shorter period of growth, but is showing the same tendency to a rapid increase. During the first year of its history its enrollment increased two-thirds, and the next year a little more than one-fifth. The total number of pupils registered in 1914 was a little more than twice the number enrolled in 1912. Meanwhile, the day schools had increased their numbers by 7.1 per cent and the high schools by 13.4 per cent.

Striking as these comparative percentages of increase are, they do not tell the whole story, since the actual enrollment has not at any time since the first year represented all who wished to enter the trade schools. Since then the schools have been unable to accommodate all applicants, so the number has been limited and pupils are allowed to enter as vacancies occur, in the order of their application. The consistently rapid growth of the trade schools for girls shows the value set upon this sort of training by the community, the girls, and their parents.

NONCOMPETITIVE CHARACTER OF TRADE AND ORDINARY SCHOOLS.

The very rapid increase in the trade-school enrollment naturally raises the question, "Are these schools competing with ordinary high and grammar schools or are they satisfying a need not previously met by other educational institutions?" Certainly they are not competing on the same terms, owing to the great difference between the trade-school courses and those offered in any other kind of schools. There is good reason for thinking, however, that they are not competing at all. A comparison between the rate of increase shown in the preceding table for the high schools and the trade schools does not indicate that the high schools have suffered from the establish-

Taking up the other side of the question, the significance of maturity in the girl's ability to enter her trade is strikingly illustrated in the following table:

TABLE 10.—PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL GIRLS WHO ENTERED AND WHO DID NOT ENTER THEIR TRADES, BY AGE AT LEAVING TRADE SCHOOL.

Age at leaving trade school.	Per cent of trade-school pupils in—						Per cent of total trade-school pupils—	
	Boston—		Worcester—		Cambridge—			
	Who used their trades.	Who did not use their trades.	Who used their trades.	Who did not use their trades.	Who used their trades.	Who did not use their trades.	Who used their trades.	Who did not use their trades.
Under 15 years	7.1	92.9	9.9	90.1	8.8	91.2	7.7	92.3
15 and under 16 years	38.2	61.8	18.9	81.1	18.5	81.5	34.4	65.6
16 and under 17 years	48.6	51.4	33.3	66.7	21.3	76.7	45.3	54.7
17 and under 18 years	57.2	42.8	46.9	53.1	57.1	42.9	55.8	44.2
18 and under 19 years	67.1	32.9	48.1	51.9	28.6	71.4	63.1	36.9
19 and under 20 years	69.1	30.9	50.0	50.0	50.0	50.0	65.7	34.3
20 and under 21 years	58.6	41.4	40.0	60.0	....	100.0	54.3	45.7
21 years and over	47.1	52.9	50.0	50.0	50.0	50.0	47.5	52.5
Total	38.6	61.4	27.4	72.6	23.0	77.0	36.3	63.7

The large proportion of those in the younger groups who did not enter their trades shows the importance of maturity in gaining a foothold in the industrial world. Ninety-two (92.3) per cent of those leaving the school under 15 years, 65.6 per cent of those 15 years and under 16, and 54.7 per cent of those 16 but under 17 did not enter their trade. Of the girls leaving the trade school at 17, more entered their trade than did not, and the proportion entering increases with each year up to 20. Girls going out at the age of 20 or over are about equally divided in their use of the training. It is to be noted in this connection that while a large proportion of the girls under 16 can not enter their trade because of their immaturity, the girl who is 20 or over frequently does not use her training because of better opportunities which are open to her. The young girl can not get into her trade, the older girl can get into something better. In Boston, where trade opportunities are more favorable for the young girl than elsewhere, the proportions in each age group entering and not entering the trade are very similar to those shown for the group as a whole, and all the advantage in entering a trade lies with the girl of 16 or over when she leaves the trade school.

There are perhaps three causes for this condition; first, the child-labor laws of Massachusetts make it increasingly difficult for children under 16 years to enter industry; second, all the skilled industries are making higher demands for maturity and judgment, demands which a girl under 16 is quite unable to meet; and third, conditions in the sewing trades make the employment of young and inexperienced workers peculiarly unprofitable.

(27.1 per cent) had been out of the regular public schools from four months to nearly four years before entering the trade schools. If the girls visited are representative of the whole body of pupils—and there is no reason to suppose that they are not—it is evident that there is a considerable proportion of the trade-school pupils for whom the question of competition between the two kinds of schools could not arise; they had definitely left one before planning to enter the other.

When the trade schools were started it was with the purpose of reaching the kind of girl who did not wish to attend high school, or who could not afford the time for it, and this purpose has been borne in mind throughout. In both the Boston and the Worcester trade schools it is customary to send back to the grammar and high schools all pupils who their instructors have reason to think will do better in academic than in trade work. In Worcester 7.3 [1] per cent of all the pupils leaving the trade schools for any reason returned to other schools. On the Boston records 11.6 [1] per cent are set down as having returned to school.

Summing up the situation, then, such information as is available seems to show that the trade school is not a competitor of the regular grammar and high schools, because: (1) The character of the work done is so different from that carried on in other public schools that it would scarcely attract children likely to make a success of the ordinary school studies. It is primarily attractive to the girl whose chief interest is to earn money as soon as possible, but who is willing and able to give a short time for preparation. (2) The pupils do not come in any large measure from those of ordinary grammar school age. (3) No change in the percentage of increase in high and normal schools can be discovered in the 10 years subsequent to the founding of the trade school in Boston. (4) Many of the pupils (20.6 per cent of those visited in Boston and Worcester) had definitely left the regular public schools before entering the trade schools. (5) The trade schools have sent back to grammar and high school 10.5 per cent of the whole number of pupils leaving the trade schools. The increase in the enrollment seems to indicate, therefore, that the trade schools are filling a need not hitherto met in the system of education, and that instead of competing with the other schools they supplement them, giving a training which the regular schools can not supply but for which there is a real demand.

COURSES OFFERED IN THE DIFFERENT TRADE SCHOOLS.

The courses offered in the trade schools differ essentially from those given in any other educational institution, both in object and in method of presentation. The selection of the trades to be taught in the several communities has been a matter of much difficulty.

---

[1] See Table 28, p. 45.

The bases of selection may be three: First, a general survey of trade opportunities for women in the city, including occupations for which women are generally supposed to be best adapted, particularly those connected with the making of clothing and the preparation of food; second, a scientific survey of a community to determine which lines of work offer the best opportunities; and, third, the experience of the school itself, resulting in the modification of old courses and the introduction of new ones, in accordance with the demands of the public with which the school comes in contact.

Boston followed the first of these plans. From a study of such data as were available it was decided that "clothing trades offer women the greatest opportunities."[1] A brief survey of the dressmaking, millinery, and ready-made clothing industries was then made to determine the content of the proposed courses. Sewing only was offered in the summer course given in 1904,[2] and millinery and power-machine operating on cloth were added in the fall. In addition to these three trades, selected on the basis of the first general survey, training in three other trades is now offered, as a result of the experience of the school. Power-machine operating on straw hats has been taught since 1905–6,[3] and trade cooking and design were first offered in 1912–13.[4]

In the other three cities the second plan of selection was followed. The board of trustees of the Independent Industrial Schools in Worcester and the superintendents of schools in Cambridge and Somerville were instrumental in securing a survey of their cities before the girls' trade schools were established.[5] Dressmaking, millinery, and power-machine operating on cloth have been taught in Worcester since the opening of the school; trade cooking was introduced in September, 1914. In Cambridge, at first, dressmaking, cooking, and millinery were offered. The course in millinery was discontinued in October, 1914, because the management believed that, as a trade, it offered too little opportunity. In Somerville, dressmaking and millinery were taught in 1911–12. The following year, the household arts side of the training received more emphasis than the trade side, and in 1913–14 the name of the school was changed from the Trade School for Girls to the Vocational School for Girls. Dressmaking, millinery, and cooking are taught as homemaking vocations with trade standards.

In 1914–15, then, the Boston Trade School for Girls offered six courses, dressmaking, millinery, power-machine operating on cloth, with the trade-trained dressmakers and with the trade-school girls who had taken the cloth power-machine operating course. Only 46.1 per cent of the latter, as compared with 52.5 per cent of the trade-trained girls, had not at least graduated from grammar school.

---

[1] Fifth Annual Report of the Boston Trade School for Girls, 1909, p. 11.

[2] First Annual Report of the Boston Trade School for Girls, 1905, pp. 6, 7.

[3] Second Annual Report of the Boston Trade School for Girls, 1906, p. 14.

[4] Trade School Bulletin IV, April, 1912; Trade School Bulletin VI, May, 1913.

[5] Department of Research, Women's Educational and Industrial Union: A trade school for girls, United States Bureau of Education, Bulletin, 1913, No. 17, p. 9.

Comparing the whole group of trade-trained workers with the pupils of the Boston Trade School trained in dressmaking and cloth power-machine operating, we have the proportions shown in Table 15.

The trade-trained group does not show quite so high a level of education as the trade-school girls who used their trade, but surpasses the trade-school girls who did not use their trade. The trade-trained group is small, and it is doubtful whether any significance can be attached to the difference in education between it and the trade-school girls who used their trades. The close resemblance between these two groups, however, and their common difference from the group of trade-school girls who did not use their trades make it seem probable that both in dressmaking and in cloth power-machine operating education is an important factor, and that in both these trades the majority of workers require for success at least the degree of education implied by graduation from the grammar school. This seems to hold good whether the workers are trained in the trade or in the trade school.

RELATION BETWEEN LENGTH OF TRADE-SCHOOL COURSE AND USE OF TRADE TRAINING.

Before discussing this relationship it seems desirable to give some statement of the time a trade school course is normally expected to cover, and how it compares with the courses of other public schools in this respect. Comment has already been made on the great variation in age and school experience of the girls who come as pupils to the trade schools, a variation much greater than is found in other day schools. This variation increases so greatly the difficulty of handling the pupils in classes that it is practically necessary to give individual instruction. The course must be extremely elastic, but in each case its end is the same, to equip very young pupils adequately for the demands of exacting trades. The content of each course is, therefore, variable according to the needs of the pupils, and the length is not always definitely fixed.

Short and intensive courses have been planned in order to meet the needs of the girl who must be prepared as quickly as possible to enter the industry. The school has devised a course designed to supply the pupil with both the minimum of skill demanded by the trade and such general understanding of trade processes and methods as will allow her to advance in her work. Critics have sometimes objected to this latter feature, urging that intensive courses in a single process or group of processes should be given. Experience has shown that this is not desirable. Even the greatest amount of skill in an elementary process can never equip a girl with the general knowledge of her craft, which she needs if she wishes to progress. The difficult way of acquiring these general facts is by observation in a shop while actually working at the trade; the easier way is by learning systematically in the school. Yet this general training necessarily makes the course longer, and increases the need for working with each pupil individually.

The trade schools attempt to meet the complex demands made on them by giving a long school day and a long school year, and by making their courses as flexible as possible. When the Boston Trade School was opened the sessions lasted from 8.30 a. m. to 5 p. m. five days a week; of the 37½ hours thus obtained 29 were devoted to trade work, 3 to design, 1½ each to gymnasium and cooking, and 2½ to assemblies.[1] These are approximately the established hours still,[2] 25 hours being spent in trade practice, 8 in arithmetic, English, design, and textiles, and 4½ in gymnasium and general training. In the Worcester Trade School the hours are from 8.30 a. m. to 4.45 p. m., and in Cambridge from 8.30 a. m. to 4.30 p. m. The division of time is substantially the same as that in the Boston school. The trade-school week is thus longer by about seven hours than that of the ordinary school, and is a fair approximation to a working week. The school year is in Worcester 42 weeks and in Cambridge and Boston 40 weeks.

In order to make the training as nearly continuous as possible Boston and Worcester have, for several years, offered summer school courses, the trade school in Worcester holding a six weeks' and the Boston school an eight weeks' session. This summer session, besides allowing girls already in school to continue their training without interruption, is considered an "especially favorable time for elementary-school graduates to enter, as they may complete their preparatory sewing before September and gain a season in going out to work."[3] The enrollment in the summer schools is constantly increasing; in Boston it has risen from 134 in 1911 to 201 in 1914, and in Worcester from 43 in 1912 to 88 in 1914.

The trade schools, then, endeavor to meet the varied needs of their pupils by devising a short, intensive course, by offering training which is practically continuous throughout the year, and by approximating trade hours in the length of the day sessions.

TIME ACTUALLY SPENT IN TRADE SCHOOL.

In Worcester the trade-school course is two years (21 months) in length, during which time 1,700 hours must be spent in trade work. In Boston a girl is placed as soon as the school thinks she is ready to do the work. This time varies according to the ability, age, and

---

[1] First Annual Report of the Boston Trade School for Girls, 1905, p. 4.

[2] Trade School Bulletin IV, April, 1912.

[3] Trade School Bulletin IX, May, 1915.

TABLE 9.—AGE AT LEAVING SCHOOL OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL GIRLS WHO USED AND WHO DID NOT USE THEIR TRAINING.

NUMBER.

Locality and use of trade.	Pupils leaving trade school at each specified age.									
	Under 15 years.	15 and under 16 years.	16 and under 17 years.	17 and under 18 years.	18 and under 19 years.	19 and under 20 years.	20 and under 21 years.	21 years and over.	Not reported.	Total.
BOSTON.										
Using their trade:										
1904 to 1909[1]	10	58	68	62	33	6	7	3	......	247
1909 to 1914[2]	13	122	159	117	75	32	10	13	......	541
Total	23	180	227	179	108	38	17	16	......	788
Not using their trade:										
1904 to 1909[1]	209	146	111	60	20	3	4	4	4	561
1909 to 1914[2]	93	145	129	74	33	14	8	14	185	695
Total	302	291	240	134	53	17	12	18	189	1,256
Total, Boston	325	471	467	313	161	55	29	34	189	2,044
WORCESTER.										
Using their trade	8	17	24	23	13	5	2	2	......	94
Not using their trade	73	73	48	26	14	5	3	2	5	249
Total, Worcester	81	90	72	49	27	10	5	4	5	343
CAMBRIDGE.										
Using their trade	3	5	7	4	2	1	......	1	3	26
Not using their trade	31	22	23	3	5	1	1	1	......	87
Total, Cambridge	34	27	30	7	7	2	1	2	3	113
TOTAL.										
Using their trade	34	202	258	206	123	44	19	19	3	908
Not using their trade	406	386	311	163	72	23	16	21	194	1,592
Total	440	588	569	369	195	67	35	40	197	2,500

PER CENT.[3]

Locality and use of trade.	Under 15 years.	15 and under 16 years.	16 and under 17 years.	17 and under 18 years.	18 and under 19 years.	19 and under 20 years.	20 and under 21 years.	21 years and over.	Not reported.	Total.
BOSTON.										
Using their trade:										
1904 to 1909[1]	4.0	23.5	27.5	25.1	13.4	2.4	2.8	1.2	......	100.0
1909 to 1914[2]	2.4	22.6	29.4	21.6	13.9	5.9	1.8	2.4	......	100.0
Total	2.9	22.8	28.8	22.7	13.7	4.8	2.2	2.0	......	100.0
Not using their trade:										
1904 to 1909[1]	37.5	26.2	19.9	10.8	3.6	.5	.7	.7	......	100.0
1909 to 1914[2]	18.2	28.4	25.3	14.5	6.5	2.7	1.6	2.7	......	100.0
Total	28.3	27.3	22.5	12.6	5.0	1.6	1.1	1.7	......	100.0
Total, Boston	17.5	25.4	25.2	16.9	8.7	3.0	1.6	1.8	......	100.0
WORCESTER.										
Using their trade	8.5	18.1	25.5	24.5	13.8	5.3	2.1	2.1	......	100.0
Not using their trade	29.9	29.9	19.7	10.7	5.7	2.0	1.2	.8	......	100.0
Total, Worcester	24.0	26.6	21.3	14.5	8.0	3.0	1.5	1.2	......	100.0
CAMBRIDGE.										
Using their trade	13.0	21.7	30.4	17.4	8.7	4.3	......	4.3	......	100.0
Not using their trade	35.6	25.3	26.5	3.4	5.8	1.1	1.1	1.1	......	100.0
Total, Cambridge	30.9	24.5	27.3	6.4	6.4	1.8	.9	1.8	......	100.0
TOTAL.										
Using their trade	3.8	22.3	28.5	22.8	13.6	4.9	2.1	2.1	......	100.0
Not using their trade	29.0	27.6	22.3	11.7	5.2	1.6	1.1	1.5	......	100.0
Total	19.1	25.5	24.7	16.0	8.5	2.9	1.5	1.7	......	100.0

[1] Under private management.
[2] Under public management.
[3] Based on the number of pupils whose age at leaving the trade school was reported.

Taking up the other side of the question, the significance of maturity in the girl's ability to enter her trade is strikingly illustrated in the following table:

TABLE 10.—PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL GIRLS WHO ENTERED AND WHO DID NOT ENTER THEIR TRADES, BY AGE AT LEAVING TRADE SCHOOL.

Age at leaving trade school.	Per cent of trade-school pupils in—						Per cent of total trade-school pupils—	
	Boston—		Worcester—		Cambridge—			
	Who used their trades.	Who did not use their trades.	Who used their trades.	Who did not use their trades.	Who used their trades.	Who did not use their trades.	Who used their trades.	Who did not use their trades.
Under 15 years	7.1	92.9	9.9	90.1	8.8	91.2	7.7	92.3
15 and under 16 years	38.2	61.8	18.9	81.1	18.5	81.5	34.4	65.6
16 and under 17 years	48.6	51.4	33.3	66.7	23.3	76.7	45.3	54.7
17 and under 18 years	57.2	42.8	46.9	53.1	57.1	42.9	55.8	44.2
18 and under 19 years	67.1	32.9	48.1	51.9	28.6	71.4	63.1	36.9
19 and under 20 years	69.1	30.9	50.0	50.0	50.0	50.0	65.7	34.3
20 and under 21 years	58.6	41.4	40.0	60.0	....	100.0	54.3	45.7
21 years and over	47.1	52.9	50.0	50.0	50.0	50.0	47.5	52.5
Total	38.6	61.4	27.4	72.6	23.0	77.0	36.3	63.7

The large proportion of those in the younger groups who did not enter their trades shows the importance of maturity in gaining a foothold in the industrial world. Ninety-two (92.3) per cent of those leaving the school under 15 years, 65.6 per cent of those 15 years and under 16, and 54.7 per cent of those 16 but under 17 did not enter their trade. Of the girls leaving the trade school at 17, more entered their trade than did not, and the proportion entering increases with each year up to 20. Girls going out at the age of 20 or over are about equally divided in their use of the training. It is to be noted in this connection that while a large proportion of the girls under 16 can not enter their trade because of their immaturity, the girl who is 20 or over frequently does not use her training because of better opportunities which are open to her. The young girl can not get into her trade, the older girl can get into something better. In Boston, where trade opportunities are more favorable for the young girl than elsewhere, the proportions in each age group entering and not entering the trade are very similar to those shown for the group as a whole, and all the advantage in entering a trade lies with the girl of 16 or over when she leaves the trade school.

There are perhaps three causes for this condition; first, the child-labor laws of Massachusetts make it increasingly difficult for children under 16 years to enter industry; second, all the skilled industries are making higher demands for maturity and judgment, demands which a girl under 16 is quite unable to meet; and third, conditions in the sewing trades make the employment of young and inexperienced workers peculiarly unprofitable.

Comment has already been made on the fact that in its earlier years a trade school tends to attract a slightly younger group of pupils than is enrolled after the school is better established. Inevitably, this leads to an increase in the age at leaving school. The following table shows the age distribution at time of leaving of the pupils of the Boston Trade School during the first and second five years of its existence:

TABLE 11.—AGE DISTRIBUTION OF THE PUPILS LEAVING THE BOSTON TRADE SCHOOL UNDER PRIVATE MANAGEMENT, 1904 TO 1909, AND UNDER PUBLIC MANAGEMENT, 1909 TO 1914.

Age at leaving trade school.	Per cent of girls of specified age leaving the trade school.		
	1904 to 1909	1909 to 1914	Total.
Under 15 years	27.2	10.1	17.5
15 and under 16 years	25.4	25.4	25.4
16 and under 17 years	22.3	27.4	25.2
17 and under 18 years	15.2	18.2	16.9
18 and under 19 years	6.6	10.3	8.7
19 and under 20 years	1.1	4.4	3.0
20 and under 21 years	1.4	1.7	1.6
21 years and over	.9	2.6	1.8
Total	100.0	100.0	100.0

The change in the group under 15 is particularly striking. From the preceding table it appeared that not 1 in 10 of those leaving the school under the age of 15 made use of her trade, so this decrease is emphatically a change for the better. Since a girl under 16 has little opportunity to make use of her training, the general increase in age of leaving shown in the second period means that more pupils should be able to enter their trades immediately on leaving. A comparison of this table with Table 5 shows that the increase in the percentage of older pupils leaving the school is greater in the second period than the increase in the percentage of older pupils entering it, indicating that the pupils are spending a longer time in their training now than formerly. This very patent change must mean that more and more young people will depend on the trade school for a fairly complete training, instead of going into the industry after having obtained only the rudiments of their trade in the school. It may also be another indication that trade schools must be depended on to give young people the training they formerly received in the industry.

RELATION BETWEEN AMOUNT OF PREVIOUS SCHOOLING AND TENDENCY TO ENTER TRADE FOR WHICH TRAINED.

The following table shows the proportion which girls with a specified degree of previous school experience formed of those who used and of those who failed to use their training:

TABLE 12.—PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL PUPILS WITH SPECIFIED PREVIOUS SCHOOLING WHO USED AND WHO DID NOT USE THEIR TRADE TRAINING.[1]

Previous schooling.	Girls using their trade.						Girls not using their trade.						Grand total.
	Boston.			Worcester.	Cambridge.	Total.	Boston.			Worcester.	Cambridge.	Total.	
	1904 to 1909	1909 to 1914	Total.				1904 to 1909	1909 to 1914	Total.				
Total number....	247	541	788	94	26	908	561	695	1,256	249	87	1,592	2,500
Grammar-school nongraduates:													
Below sixth grade.......	0.8	1.1	1.0	4.3	3.8	1.4	5.2	4.8	5.0	4.1	8.3	5.0	3.7
Sixth grade...	3.2	4.3	3.9	2.1	3.8	3.8	8.2	7.0	7.6	12.0	15.5	8.7	6.9
Seventh grade	5.7	10.4	8.9	13.8	19.2	9.7	19.6	12.8	15.9	21.6	35.7	17.8	14.8
Eighth and ninth grades	13.8	11.1	12.0	33.0	19.2	14.3	22.7	20.5	21.5	28.6	9.5	21.9	19.2
Unclassified..	.4	1.7	1.3	....	....	1.1	2.1	9.1	6.0	2.1	1.2	5.1	3.6
Total.......	23.9	28.6	27.1	53.2	46.2	30.4	57.9	54.3	55.9	68.5	70.2	58.6	48.2
Grammar-school graduates.......	51.8	48.4	49.5	11.7	26.9	44.9	28.2	25.1	26.5	8.3	21.4	23.4	31.3
High school......	24.3	23.0	23.4	35.1	26.9	24.7	13.9	20.7	17.6	23.2	8.3	18.0	20.5
Grand total.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Percentages are based on number of girls whose previous schooling was known.

As Boston furnished a little over four-fifths of all who have gone out from the girls' trade schools of the State, its figures are more significant than those of the other cities. In Boston nearly three-fourths (72.9 per cent) of those using their trades had graduated from the grammar schools, and nearly one-fourth (23.4 per cent) had gone on to the high school. On the other hand, not half (44.1 per cent) of those who did not use their trades had graduated from the grammar school, and only about one-sixth (17.6 per cent) had entered the high school. In the other two cities the nongraduates of grammar schools furnish a far larger proportion of those using their trades, but it must be remembered that in these schools they also form a much larger proportion of the total enrollment than in Boston. Reference to Table 6 shows that of the Worcester pupils 64.1 per cent and of the Cambridge pupils 64.6 per cent, against 44.7 per cent in Boston, had not graduated from the grammar schools. But in Worcester this 64 per cent furnished 68.5 per cent of those who did not use their trades, and in Cambridge 70.2 per cent, while the 36 per cent who had finished the grammar-school work provided in Worcester 46.8 per cent and in Cambridge 53.8 per cent of those using their trades. These figures are not, of course, conclusive, but they seem to indicate that a girl with a good academic preparation gains access to her trade more readily than one with less education.

This indication is strengthened by a comparison of the proportion of those having each specified degree of previous education who used or did not use their trades. The following table gives the figures on this point for the three trade schools:

the requirements of the ordinary schools, and one-tenth because they did not know what else to do or were too young to begin work, or had friends in the school. Such aimlessness on the part of a pupil gives little promise of success. It is hardly to be expected that such young girls should have very definite motives for entering the schools, yet the intensive kind of work done in a trade school presupposes at least a slight interest in handwork. There is little doubt that in this respect the conditions found in Cambridge are common to all trade schools. The lack of real interest or even of a conception of the school's aim on the part of so many pupils certainly hampers the school's activities and complicates its problems.

DEGREE TO WHICH TRADE TRAINING IS UTILIZED.

In a body of pupils predominantly young, who have had relatively little previous training and many of whom enter the school with no definite aim in view, it might naturally be expected that many would fail to use their training after they leave the school. But even making due allowance for these points, the proportion of girls who failed to utilize their trade training seems large. Less than two-fifths of all who have left the three trade schools have taken up the trade for which they had been trained. The number taking each trade course has already been discussed (see Table 3); the proportion of these who, having left the school, entered their trade is shown in the following table:

TABLE 8.—PER CENT OF GIRLS TRAINED IN SPECIFIED TRADES IN BOSTON, WORCESTER, AND CAMBRIDGE TRADE SCHOOLS WHO UTILIZED THEIR TRADE TRAINING.

Trade.	Per cent using trade in—		
	Boston.	Worcester.	Cambridge.
Dressmaking	35.4	22.3	19.2
Millinery	38.5	39.6	19.0
Power-machine operating on—			
Cloth	50.0	37.7	....
Straw hats	58.4	....	....
Trade cooking	28.3	....	50.0
Design	60.0	....	....
Total	38.6	27.4	23.0

The relatively large proportions shown for cooking and design are based on very small actual numbers, cooking having been taken by only 19 in Boston and 14 in Cambridge and design by 10 in Boston. The differences shown in the other trades are to some extent explained by a difference in demand for workers of a given kind. Thus the demand for young girls trained for dressmaking is known to be larger in Boston than in Worcester or in Cambridge. In dressmaking the percentage in their trade varies from under one-fifth to a little over one-third, in millinery from under one-fifth to nearly two-fifths, and in the cloth power-machine operating trades from a little over one-third to one-half. Such a disproportion between the number taking training and the number using their training is a matter for serious consideration by the trade schools. To some extent, it is explained by the desire of the girls and their parents for courses which do not correspond to the industrial demands of the community. But from the standpoint of the school the question of main interest is, given a certain number of industrial openings, why does one girl secure a foothold while another does not? How far can the tendency not to use her trade be ascribed to the girl herself? Has age anything to do with it, or the amount of schooling she had before taking up her trade training? Has the length or type of her trade training any effect on the matter? It seems worth while to study each of these details in connection with the use—or failure to make any use—of the trade training.

RELATION OF AGE AT LEAVING TRADE SCHOOL TO UTILIZATION OF TRADE TRAINING.

This question may be considered from two aspects: It may be asked (1) what is the age of the girls who succeeded in gaining access to their trade on leaving the trade school, and (2) to what extent may their age explain their success? Taking up the first question, Table 9 shows the age distribution of the girls recorded as using and not using their trades.

It is at once evident that the girls who made use of their trade were an older group at the time of leaving school than those who did not. Of the latter from one-half to three-fifths, according to the school, were under 16 at the time of leaving, while of those who used their trades the proportion in that age group was only from one-fourth to one-third. The group aged 16 and under 18 has about the same numerical importance among those using their trade that the group aged under 16 has among those not using it; that is, about one-half of all using their trade were 16 but not yet 18 when they left the school. The group aged 18 or over forms from one-sixth to very nearly one-fourth (17.3 per cent to 23.3 per cent) of those using their trade, while among those who did not use it less than one-tenth had reached the age of 18. Of the total group, 44.6 per cent left the trade school before the age of 16, but only 26.1 per cent of those who used their trade as against 56.6 per cent of those who did not were under 16 years old when they left school. Approximately, for every trade-school girl of less than 16 years who gained access to her trade, three did not succeed in entering it.

TABLE 9.—AGE AT LEAVING SCHOOL OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL GIRLS WHO USED AND WHO DID NOT USE THEIR TRAINING.

NUMBER.

Locality and use of trade.	Pupils leaving trade school at each specified age.									
	Under 15 years.	15 and under 16 years.	16 and under 17 years.	17 and under 18 years.	18 and under 19 years.	19 and under 20 years.	20 and under 21 years.	21 years and over.	Not reported.	Total.
BOSTON.										
Using their trade:										
1904 to 1909[1]	10	58	68	62	33	6	7	3	......	247
1909 to 1914[2]	13	122	159	117	75	32	10	13	......	541
Total	23	180	227	179	108	38	17	16	......	788
Not using their trade:										
1904 to 1909[1]	209	146	111	60	20	3	4	4	4	561
1909 to 1914[2]	93	145	129	74	33	14	8	14	185	695
Total	302	291	240	134	53	17	12	18	189	1,256
Total, Boston	325	471	467	313	161	55	29	34	189	2,014
WORCESTER.										
Using their trade	8	17	24	23	13	5	2	2	......	94
Not using their trade	73	73	48	26	14	5	3	2	5	249
Total, Worcester	81	90	72	49	27	10	5	4	5	343
CAMBRIDGE.										
Using their trade	3	5	7	4	2	1	......	1	3	26
Not using their trade	31	22	23	3	5	1	1	1	......	87
Total, Cambridge	34	27	30	7	7	2	1	2	3	113
TOTAL.										
Using their trade	34	202	258	206	123	44	19	19	3	908
Not using their trade	406	386	311	163	72	23	16	21	194	1,592
Total	440	588	569	369	195	67	35	40	197	2,500

PER CENT.[3]

Locality and use of trade.	Under 15 years.	15 and under 16 years.	16 and under 17 years.	17 and under 18 years.	18 and under 19 years.	19 and under 20 years.	20 and under 21 years.	21 years and over.	Not reported.	Total.
BOSTON.										
Using their trade:										
1904 to 1909[1]	4.0	23.5	27.5	25.1	13.4	2.4	2.8	1.2	......	100.0
1909 to 1914[2]	2.4	22.6	29.4	21.6	13.9	5.9	1.8	2.4	......	100.0
Total	2.9	22.8	28.8	22.7	13.7	4.8	2.2	2.0	......	100.0
Not using their trade:										
1904 to 1909[1]	37.5	26.2	19.9	10.8	3.6	.5	.7	.7	......	100.0
1909 to 1914[2]	18.2	28.4	25.3	14.5	6.5	2.7	1.6	2.7	......	100.0
Total	28.3	27.3	22.5	12.6	5.0	1.6	1.1	1.7	......	100.0
Total, Boston	17.5	25.4	25.2	16.9	8.7	3.0	1.6	1.8	......	100.0
WORCESTER.										
Using their trade	8.5	18.1	25.5	24.5	13.8	5.3	2.1	2.1	......	100.0
Not using their trade	29.9	29.9	19.7	10.7	5.7	2.0	1.2	.8	......	100.0
Total, Worcester	24.0	26.6	21.3	14.5	8.0	3.0	1.5	1.2	......	100.0
CAMBRIDGE.										
Using their trade	13.0	21.7	30.4	17.4	8.7	4.3	......	4.3	......	100.0
Not using their trade	35.6	25.3	26.5	3.4	5.8	1.1	1.1	1.1	......	100.0
Total, Cambridge	30.9	24.5	27.3	6.4	6.4	1.8	.9	1.8	......	100.0
TOTAL.										
Using their trade	3.8	22.3	28.5	22.8	13.6	4.9	2.1	2.1	......	100.0
Not using their trade	29.0	27.6	22.2	11.7	5.2	1.6	1.1	1.5	......	100.0
Total	19.1	25.5	24.7	16.0	8.5	2.9	1.5	1.7	......	100.0

---

[1] Under private management.
[2] Under public management.
[3] Based on the number of pupils whose age at leaving the trade school was reported.

Taking up the other side of the question, the significance of maturity in the girl's ability to enter her trade is strikingly illustrated in the following table:

TABLE 10.—PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL GIRLS WHO ENTERED AND WHO DID NOT ENTER THEIR TRADES, BY AGE AT LEAVING TRADE SCHOOL.

Age at leaving trade school.	Per cent of trade-school pupils in—						Per cent of total trade-school pupils—	
	Boston—		Worcester—		Cambridge—			
	Who used their trades.	Who did not use their trades.	Who used their trades.	Who did not use their trades.	Who used their trades.	Who did not use their trades.	Who used their trades.	Who did not use their trades.
Under 15 years	7.1	92.9	9.9	90.1	8.8	91.2	7.7	92.3
15 and under 16 years	38.2	61.8	18.9	81.1	18.5	81.5	34.4	65.6
16 and under 17 years	48.6	51.4	33.3	66.7	23.3	76.7	45.3	54.7
17 and under 18 years	57.2	42.8	46.9	53.1	57.1	42.9	55.8	44.2
18 and under 19 years	67.1	32.9	48.1	51.9	28.6	71.4	63.1	36.9
19 and under 20 years	69.1	30.9	50.0	50.0	50.0	50.0	65.7	34.3
20 and under 21 years	58.6	41.4	40.0	60.0	....	100.0	54.3	45.7
21 years and over	47.1	52.9	50.0	50.0	50.0	50.0	47.5	52.5
Total	38.6	61.4	27.4	72.6	23.0	77.0	36.3	63.7

The large proportion of those in the younger groups who did not enter their trades shows the importance of maturity in gaining a foothold in the industrial world. Ninety-two (92.3) per cent of those leaving the school under 15 years, 65.6 per cent of those 15 years and under 16, and 54.7 per cent of those 16 but under 17 did not enter their trade. Of the girls leaving the trade school at 17, more entered their trade than did not, and the proportion entering increases with each year up to 20. Girls going out at the age of 20 or over are about equally divided in their use of the training. It is to be noted in this connection that while a large proportion of the girls under 16 can not enter their trade because of their immaturity, the girl who is 20 or over frequently does not use her training because of better opportunities which are open to her. The young girl can not get into her trade, the older girl can get into something better. In Boston, where trade opportunities are more favorable for the young girl than elsewhere, the proportions in each age group entering and not entering the trade are very similar to those shown for the group as a whole, and all the advantage in entering a trade lies with the girl of 16 or over when she leaves the trade school.

There are perhaps three causes for this condition; first, the child-labor laws of Massachusetts make it increasingly difficult for children under 16 years to enter industry; second, all the skilled industries are making higher demands for maturity and judgment, demands which a girl under 16 is quite unable to meet; and third, conditions in the sewing trades make the employment of young and inexperienced workers peculiarly unprofitable.

Comment has already been made on the fact that in its earlier years a trade school tends to attract a slightly younger group of pupils than is enrolled after the school is better established. Inevitably, this leads to an increase in the age at leaving school. The following table shows the age distribution at time of leaving of the pupils of the Boston Trade School during the first and second five years of its existence:

TABLE 11.—AGE DISTRIBUTION OF THE PUPILS LEAVING THE BOSTON TRADE SCHOOL UNDER PRIVATE MANAGEMENT, 1904 TO 1909, AND UNDER PUBLIC MANAGEMENT, 1909 TO 1914.

Age at leaving trade school.	Per cent of girls of specified age leaving the trade school.		
	1904 to 1909	1909 to 1914	Total.
Under 15 years	27.2	10.1	17.5
15 and under 16 years	25.4	25.4	25.4
16 and under 17 years	22.3	27.4	25.2
17 and under 18 years	15.2	18.2	16.9
18 and under 19 years	6.6	10.3	8.7
19 and under 20 years	1.1	4.4	3.0
20 and under 21 years	1.4	1.7	1.6
21 years and over	.9	2.6	1.8
Total	100.0	100.0	100.0

The change in the group under 15 is particularly striking. From the preceding table it appeared that not 1 in 10 of those leaving the school under the age of 15 made use of her trade, so this decrease is emphatically a change for the better. Since a girl under 16 has little opportunity to make use of her training, the general increase in age of leaving shown in the second period means that more pupils should be able to enter their trades immediately on leaving. A comparison of this table with Table 5 shows that the increase in the percentage of older pupils leaving the school is greater in the second period than the increase in the percentage of older pupils entering it, indicating that the pupils are spending a longer time in their training now than formerly. This very patent change must mean that more and more young people will depend on the trade school for a fairly complete training, instead of going into the industry after having obtained only the rudiments of their trade in the school. It may also be another indication that trade schools must be depended on to give young people the training they formerly received in the industry.

RELATION BETWEEN AMOUNT OF PREVIOUS SCHOOLING AND TENDENCY TO ENTER TRADE FOR WHICH TRAINED.

The following table shows the proportion which girls with a specified degree of previous school experience formed of those who used and of those who failed to use their training:

TABLE 12.—PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL PUPILS WITH SPECIFIED PREVIOUS SCHOOLING WHO USED AND WHO DID NOT USE THEIR TRADE TRAINING.[1]

Previous schooling.	Girls using their trade.						Girls not using their trade.						Grand total.
	Boston.			Worcester.	Cambridge.	Total.	Boston.			Worcester.	Cambridge.	Total.	
	1904 to 1909	1909 to 1914	Total.				1904 to 1909	1909 to 1914	Total.				
Total number....	247	541	788	94	26	908	561	695	1,256	249	87	1,592	2,500
Grammar-school nongraduates:													
Below sixth grade.......	0.8	1.1	1.0	4.3	3.8	1.4	5.2	4.8	5.0	4.1	8.3	5.0	3.7
Sixth grade...	3.2	4.3	3.9	2.1	3.8	3.8	8.2	7.0	7.6	12.0	15.5	8.7	6.9
Seventh grade	5.7	10.4	8.9	13.8	19.2	9.7	19.6	12.8	15.9	21.6	35.7	17.8	14.8
Eighth and ninth grades	13.8	11.1	12.0	33.0	19.2	14.3	22.7	20.5	21.5	28.6	9.5	21.9	19.2
Unclassified..	.4	1.7	1.3	......	....	1.1	2.1	9.1	6.0	2.1	1.2	5.1	3.6
Total.......	23.9	28.6	27.1	53.2	46.2	30.4	57.9	54.3	55.9	68.5	70.2	58.6	48.2
Grammar-school graduates.......	51.8	48.4	49.5	11.7	26.9	44.9	28.2	25.1	26.5	8.3	21.4	23.4	31.3
High school......	24.3	23.0	23.4	35.1	26.9	24.7	13.9	20.7	17.6	23.2	8.3	18.0	20.5
Grand total.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Percentages are based on number of girls whose previous schooling was known.

As Boston furnished a little over four-fifths of all who have gone out from the girls' trade schools of the State, its figures are more significant than those of the other cities. In Boston nearly three-fourths (72.9 per cent) of those using their trades had graduated from the grammar schools, and nearly one-fourth (23.4 per cent) had gone on to the high school. On the other hand, not half (44.1 per cent) of those who did not use their trades had graduated from the grammar school, and only about one-sixth (17.6 per cent) had entered the high school. In the other two cities the nongraduates of grammar schools furnish a far larger proportion of those using their trades, but it must be remembered that in these schools they also form a much larger proportion of the total enrollment than in Boston. Reference to Table 6 shows that of the Worcester pupils 64.1 per cent and of the Cambridge pupils 64.6 per cent, against 44.7 per cent in Boston, had not graduated from the grammar schools. But in Worcester this 64 per cent furnished 68.5 per cent of those who did not use their trades, and in Cambridge 70.2 per cent, while the 36 per cent who had finished the grammar-school work provided in Worcester 46.8 per cent and in Cambridge 53.8 per cent of those using their trades. These figures are not, of course, conclusive, but they seem to indicate that a girl with a good academic preparation gains access to her trade more readily than one with less education.

This indication is strengthened by a comparison of the proportion of those having each specified degree of previous education who used or did not use their trades. The following table gives the figures on this point for the three trade schools:

TABLE 13.—PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL PUPILS WITH SPECIFIED PREVIOUS SCHOOLING WHO USED AND DID NOT USE THEIR TRADE TRAINING.

Previous schooling.	Per cent of trade-school girls who used and did not use their trades.											
	Boston.						Worcester.		Cambridge.		The three schools.	
	1904-1909		1909-1914		Total.							
	Using their trade.	Not using their trade.	Using their trade.	Not using their trade.	Using their trade.	Not using their trade.	Using their trade.	Not using their trade.	Using their trade.	Not using their trade.	Using their trade.	Not using their trade.
Grammar-school nongraduates:												
Below sixth grade	6.5	93.5	15.4	84.6	11.4	88.6	28.6	71.4	12.5	87.5	14.1	85.9
Sixth grade	14.8	85.2	32.4	67.6	24.8	75.2	6.5	93.5	7.1	92.9	20.0	80.0
Seventh grade	11.3	88.7	39.2	60.8	26.2	73.8	20.0	80.0	14.3	85.7	24.0	76.0
Eighth and ninth grades	21.1	78.9	30.0	70.0	26.0	74.0	31.0	69.0	38.5	61.5	27.4	72.6
Unclassified	7.7	92.3	12.7	87.3	11.9	88.1	......	100.0	......	100.0	11.1	88.9
Total	15.4	84.6	29.4	70.6	23.5	76.5	23.3	76.7	16.9	83.1	23.1	76.9
Grammar-school graduates	44.8	55.2	60.4	39.6	54.2	45.8	35.5	64.5	28.0	72.0	52.6	47.4
High school	43.5	56.5	46.8	53.2	45.7	54.3	37.1	62.9	50.0	50.0	44.3	55.7
Not reported	......	100.0	13.3	86.7	12.5	87.5	......	100.0	......	......	7.4	92.6
Grand total	30.6	69.4	43.8	56.2	38.6	61.4	27.4	72.6	23.0	77.0	36.3	63.7

It is at once apparent that relatively few of the girls who had not completed their grammar-school course succeeded in gaining a foothold in their trade. The proportion of this group who used their trade never rises to one-fourth, and in Cambridge is little over one-sixth. As opposed to this showing the proportion of grammar-school graduates using their trade varied from nearly three-tenths (28 per cent) in Cambridge to well over one-half (54.2 per cent) in Boston. In Worcester and Cambridge the high-school students show a larger proportion using their trade than is found among the grammar-school graduates; in Boston the proportion is not quite so large, but is still considerably larger than the proportion found among the nongraduates from grammar schools. Whether the advantage which the pupil who has completed the grammar-school course apparently has over the one who leaves before its completion is due to maturity or to the individual capacity indicated by the ability to complete the grammar-school work remains a matter of doubt. The fact is clear that the girl who has not done full grammar-school work has, as shown by the figures for the total group, only one chance in four to enter her trade, while the girl who has completed the elementary training has one chance in two.

A comparative study was made of 200 dressmakers and power-machine operators on cloth, which seems to show that the academic education of women in the sewing trades is an important factor in their success. The distribution of these women as to school training is shown by the following table:

TABLE 14.—DISTRIBUTION AS TO PREVIOUS SCHOOLING OF 200 WOMEN EMPLOYED IN THE DRESSMAKING AND POWER-MACHINE OPERATING TRADES.

Schooling.	Girls with specified schooling.					
	Number.			Per cent.[1]		
	Dressmaking.	Power-machine operating on cloth.	Total.	Dressmaking.	Power-machine operating on cloth.	Total.
Grammar-school nongraduates:						
Below sixth grade	7	8	15	7.2	8.1	7.7
Sixth grade	6	1	7	6.2	1.0	3.6
Seventh grade	4	6	10	4.1	6.1	5.1
Eighth and ninth grades	4	19	23	4.1	19.2	11.7
Foreign	1	15	16	1.0	15.2	8.2
Not reported	2	3	5	2.1	3.0	2.6
Total	24	52	76	24.7	52.5	38.8
Grammar-school graduates	46	28	74	47.4	28.3	37.8
High school	27	19	46	27.8	19.2	23.5
Schooling not reported	3	1	4			
Grand total	100	100	200	100.0	100.0	100.0

[1] Based on number of girls whose schooling was reported.

It appears that among the 100 trade-trained[a] dressmakers 3 girls in every 4 had at least completed the grammar-school course, and 1 in 4 had taken high-school work. In Boston 444 girls trained as dressmakers in the trade school made use of their trade; of these, 26.4 per cent were nongraduates of the grammar schools, 51.4 per cent had graduated from the grammar schools but had gone no further, and 22.1 per cent were high-school students. These last two percentages are slightly below the corresponding ones for the trade-trained dressmakers. Among the power-machine operators a lower educational equipment prevailed; lower both as compared

TABLE 15.—PER CENT OF TRADE-TRAINED WORKERS AND OF BOSTON TRADE SCHOOL PUPILS HAVING EACH SPECIFIED SCHOOLING—DRESSMAKING AND CLOTH POWER-MACHINE OPERATING.

Schooling.	Per cent having each specified schooling.		
	Trade-trained workers.	Trade-school pupils—	
		Using trade.	Not using trade.
	Per cent.	*Per cent.*	*Per cent.*
Grammar-school nongraduates	38.8	29.6	57.2
Grammar-school graduates	37.8	50.0	26.7
High-school students	23.5	20.3	16.1
Total	100.0	100.0	100.0

---

[a] The term "trade trained" is used for simplicity to mean those girls who have acquired their training through actual experience in the trade.

with the trade-trained dressmakers and with the trade-school girls who had taken the cloth power-machine operating course. Only 46.1 per cent of the latter, as compared with 52.5 per cent of the trade-trained girls, had not at least graduated from grammar school.

Comparing the whole group of trade-trained workers with the pupils of the Boston Trade School trained in dressmaking and cloth power-machine operating, we have the proportions shown in Table 15.

The trade-trained group does not show quite so high a level of education as the trade-school girls who used their trade, but surpasses the trade-school girls who did not use their trade. The trade-trained group is small, and it is doubtful whether any significance can be attached to the difference in education between it and the trade-school girls who used their trades. The close resemblance between these two groups, however, and their common difference from the group of trade-school girls who did not use their trades make it seem probable that both in dressmaking and in cloth power-machine operating education is an important factor, and that in both these trades the majority of workers require for success at least the degree of education implied by graduation from the grammar school. This seems to hold good whether the workers are trained in the trade or in the trade school.

RELATION BETWEEN LENGTH OF TRADE-SCHOOL COURSE AND USE OF TRADE TRAINING.

Before discussing this relationship it seems desirable to give some statement of the time a trade school course is normally expected to cover, and how it compares with the courses of other public schools in this respect. Comment has already been made on the great variation in age and school experience of the girls who come as pupils to the trade schools, a variation much greater than is found in other day schools. This variation increases so greatly the difficulty of handling the pupils in classes that it is practically necessary to give individual instruction. The course must be extremely elastic, but in each case its end is the same, to equip very young pupils adequately for the demands of exacting trades. The content of each course is, therefore, variable according to the needs of the pupils, and the length is not always definitely fixed.

Short and intensive courses have been planned in order to meet the needs of the girl who must be prepared as quickly as possible to enter the industry. The school has devised a course designed to supply the pupil with both the minimum of skill demanded by the trade and such general understanding of trade processes and methods as will allow her to advance in her work. Critics have sometimes objected to this latter feature, urging that intensive courses in a single process or group of processes should be given. Experience has shown that this is not desirable. Even the greatest amount of skill in an elementary process can never equip a girl with the general knowledge of her craft, which she needs if she wishes to progress. The difficult way of acquiring these general facts is by observation in a shop while actually working at the trade; the easier way is by learning systematically in the school. Yet this general training necessarily makes the course longer, and increases the need for working with each pupil individually.

The trade schools attempt to meet the complex demands made on them by giving a long school day and a long school year, and by making their courses as flexible as possible. When the Boston Trade School was opened the sessions lasted from 8.30 a. m. to 5 p. m. five days a week; of the 37½ hours thus obtained 29 were devoted to trade work, 3 to design, 1½ each to gymnasium and cooking, and 2½ to assemblies.[1] These are approximately the established hours still,[2] 25 hours being spent in trade practice, 8 in arithmetic, English, design, and textiles, and 4½ in gymnasium and general training. In the Worcester Trade School the hours are from 8.30 a. m. to 4.45 p. m., and in Cambridge from 8.30 a. m. to 4.30 p. m. The division of time is substantially the same as that in the Boston school. The trade-school week is thus longer by about seven hours than that of the ordinary school, and is a fair approximation to a working week. The school year is in Worcester 42 weeks and in Cambridge and Boston 40 weeks.

In order to make the training as nearly continuous as possible Boston and Worcester have, for several years, offered summer school courses, the trade school in Worcester holding a six weeks' and the Boston school an eight weeks' session. This summer session, besides allowing girls already in school to continue their training without interruption, is considered an "especially favorable time for elementary-school graduates to enter, as they may complete their preparatory sewing before September and gain a season in going out to work."[3] The enrollment in the summer schools is constantly increasing; in Boston it has risen from 134 in 1911 to 201 in 1914, and in Worcester from 43 in 1912 to 88 in 1914.

The trade schools, then, endeavor to meet the varied needs of their pupils by devising a short, intensive course, by offering training which is practically continuous throughout the year, and by approximating trade hours in the length of the day sessions.

TIME ACTUALLY SPENT IN TRADE SCHOOL.

In Worcester the trade-school course is two years (21 months) in length, during which time 1,700 hours must be spent in trade work. In Boston a girl is placed as soon as the school thinks she is ready to do the work. This time varies according to the ability, age, and previous general training of the pupil, but two-thirds of the pupils placed by the school have been in attendance more than 12 months. Virtually, therefore, the school may be said to have established a course of at least 12 months for the majority of its accredited pupils. The trade schools, however, like all other schools, have many pupils who do not in any sense complete their courses. The following tables show for each of the schools the number and per cent of girls, by trades, who remained in attendance for specified periods:

---

[1] First Annual Report of the Boston Trade School for Girls, 1905, p. 4.

[2] Trade School Bulletin IV, April, 1912.

[3] Trade School Bulletin IX, May, 1915.

TABLE 16.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL PUPILS WHO ATTENDED THE TRADE SCHOOL EACH SPECIFIED LENGTH OF TIME, CLASSIFIED BY COURSES.

NUMBER.

Period of attendance in trade school.	Girls attending trade school specified length of time.							
	Dressmaking.	Millinery.	Power-machine operating on—		Cooking.	Design.	Not reported.	Total.
			Cloth.	Straw hats.				
Under 3 months	368	124	54	28	3	1	15	593
3 and under 6 months	154	51	30	25	2	1	1	264
6 and under 9 months	154	63	18	20	2	3	....	260
9 and under 12 months	125	37	13	13	2	1	....	191
12 and under 18 months	232	79	44	28	2	2	....	387
18 months and over	111	30	15	12	1	....	....	169
Not reported	111	42	4	11	7	2	3	180
Total	1,255	426	178	137	19	10	19	2,044

PER CENT.[1]

Period of attendance in trade school.	Dressmaking.	Millinery.	Cloth.	Straw hats.	Cooking.	Design.	Not reported.	Total.
Under 3 months	32.2	32.3	31.0	22.2	25.0	12.5	93.8	31.8
3 and under 6 months	13.5	13.3	17.2	19.9	16.7	12.5	6.3	14.2
6 and under 9 months	13.5	16.1	10.3	15.9	16.7	37.5	....	13.9
9 and under 12 months	10.9	9.6	7.5	10.3	16.7	12.5	....	10.2
12 and under 18 months	20.3	20.6	25.3	22.2	16.7	25.0	....	20.8
18 months and over	9.7	7.8	8.6	9.5	8.3	....	....	9.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Based on number of girls whose length of attendance was reported.

TABLE 17.—NUMBER AND PER CENT OF WORCESTER TRADE SCHOOL PUPILS WHO ATTENDED TRADE SCHOOL EACH SPECIFIED LENGTH OF TIME, CLASSIFIED BY COURSES.

Period of attendance in trade school.	Girls attending trade school specified length of time.								
	Number.					Per cent.			
	Dressmaking.	Millinery.	Power-machine operating on cloth.	Not reported.	Total.	Dressmaking.	Millinery.	Power-machine operating on cloth.	Total.
Under 3 months	73	16	19	5	113	32.6	30.2	31.1	32.9
3 and under 6 months	32	2	13	....	47	14.3	3.8	21.3	13.7
6 and under 9 months	17	7	5	....	29	7.6	13.2	8.2	8.5
9 and under 12 months	35	5	12	....	52	15.6	9.4	19.7	15.2
12 and under 18 months	15	4	3	....	22	6.7	7.5	4.9	6.4
18 months and over	12	1	1	....	14	5.4	1.9	1.6	4.1
Graduation	40	18	8	....	66	17.9	34.0	13.1	19.2
Total	224	53	61	5	343	100.0	100.0	100.0	100.0

TABLE 18.—NUMBER AND PER CENT OF CAMBRIDGE TRADE SCHOOL PUPILS WHO ATTENDED TRADE SCHOOL EACH SPECIFIED LENGTH OF TIME, CLASSIFIED BY COURSES.

Period of attendance in trade school.	Girls attending trade school specified length of time.							
	Number.				Per cent.			
	Dress-making.	Millinery.	Cooking.	Total.	Dress-making.	Millinery.	Cooking.	Total.
Under 3 months	36	4	3	43	46.1	19.0	21.4	38.1
3 and under 6 months	19	6	5	30	24.4	28.6	35.7	26.5
6 and under 9 months	13	....	1	14	16.7	....	7.1	12.4
9 and under 12 months	8	6	5	19	10.3	28.6	35.7	16.8
12 and under 18 months	1	5	....	6	1.3	23.8	....	5.3
18 months and over	1	....	....	1	1.3	....	....	.9
Total	78	21	14	113	100.0	100.0	100.0	100.0

Summarizing these figures for the pupils of each school, regardless of the trade they studied, omitting those for whom time is not reported, we have the following proportions for specified periods of attendance:

TABLE 19.—PER CENT OF GIRLS ATTENDING TRADE SCHOOL EACH SPECIFIED PERIOD OF TIME, IN THE THREE CITIES.

Period of attendance in trade school.	Per cent of girls attending trade school each specified period of time.		
	Boston.	Worcester.	Cambridge.
Under 3 months	31.8	32.9	38.1
3 and under 12 months	38.3	37.4	55.7
12 months and over	29.9	29.7	6.2
Total	100.0	100.0	100.0

The close similarity in the figures for Boston and Worcester is striking. The divergence shown by Cambridge is perhaps due to the fact that this school had been in existence, at the time of this investigation, only three years; that is, it was still in the early period in which the type of pupil has not become established. In Boston and Worcester approximately one-third of the pupils attend for less than three months, and this proportion holds good for each of the principal trades in which courses are given.

Reference has already been made to the tendency of pupils entering the Boston school during the second five years of its existence to spend a longer time in training than did those entering in the earlier period. The following table shows the change in this respect:

TABLE 20.—NUMBER AND PER CENT OF PUPILS ATTENDING BOSTON TRADE SCHOOL FOR SPECIFIED PERIODS UNDER PRIVATE MANAGEMENT, 1904 TO 1909, AND UNDER PUBLIC MANAGEMENT, 1909 TO 1914.

Period of attendance in trade school.	Number.			Per cent.[1]		
	1904 to 1909	1909 to 1914	Total.	1904 to 1909	1909 to 1914	Total.
Under 3 months	411	182	593	50.9	17.2	31.8
3 and under 6 months	113	151	264	14.0	14.3	14.2
6 and under 9 months	101	159	260	12.5	15.1	13.9
9 and under 12 months	70	121	191	8.7	11.5	10.2
12 and under 18 months	94	293	387	11.6	27.7	20.8
18 months and over	19	150	169	2.3	14.2	9.1
Not reported		180	180			
Total	808	1,236	2,044	100.0	100.0	100.0

[1] Based on number whose length of attendance was reported.

The increase in the number taking the longer periods of training and the decrease in those taking the shorter are alike striking. Proportionately, nearly three times as many dropped out within three months during the first period as during the second, while the proportion remaining for 12 months and over was just three times as great during the second as during the first period—41.9 per cent against 13.9 per cent. An interesting corollary to this increasing length of attendance is the increasing proportion, 30.6 per cent of the first group and 43.8 per cent of the second group, who used their trade. (See Table 13, p. 32.)

DISTRIBUTION, BY LENGTH OF TRADE TRAINING, OF GIRLS USING THEIR TRADES.

Of the 2,500 trade-school pupils studied, 908 entered their trades. The distribution of these by time spent in the trade school is as follows:

TABLE 21.—NUMBER OF GIRLS IN THREE TRADE SCHOOLS ATTENDING FOR SPECIFIED PERIODS, AND NUMBER AND PER CENT IN EACH CLASS WHO ENTERED THEIR TRADES.

Period of attendance in trade school.	Number of pupils.	Number using trade.	Per cent in each class using trade.
Under 6 months	1,090	93	8.5
6 and under 12 months	565	249	44.1
12 and under 18 months	415	349	84.1
18 months and over	250	217	86.8
Not reported	180		
Total	2,500	908	36.3

More than two-fifths of the total pupils (1,090, or 43.6 per cent) attended school for less than six months, but of these only 8.5 per cent used their trades. The per cent who used their trades shows marked increases as the length of schooling increases. Thus in the group of those who had six months' and under 12 months' training 44.1 per cent entered their trades; of those who had 12 months' and under 18 months' training 84.1 per cent; while in the last group 86.8 per cent used their trades.

It has already been mentioned that two-thirds of the pupils whom the Boston Trade School sends out as accredited have been in training for over 12 months. This corresponds closely to the proportion in training for 12 months or over among those who used their trades.

These figures are for the girls of the trade school, regardless of the trade for which they were trained. The following table shows for the sewing trades the proportion using their trade in each group having a specified length of training:

TABLE 22.—NUMBER OF GIRLS TRAINED IN SEWING COURSES FOR SPECIFIED PERIODS IN BOSTON, WORCESTER, AND CAMBRIDGE TRADE SCHOOLS, AND PER CENT IN EACH CLASS WHO ENTERED TRADES.

Period of attendance in trade school.	Boston Trade School.[1]									
	Dressmaking.		Millinery.		Power-machine operating on—				Total.	
					Cloth.		Straw hats.			
	Number trained.	Per cent using trade.	Number trained.	Per cent using trade.	Number trained.	Per cent using trade.	Number trained.	Per cent using trade.	Number trained.	Per cent using trade.
Under 6 months	522	4.6	175	10.3	84	16.7	53	41.5	834	9.4
6 and under 12 months	279	43.0	100	49.0	31	64.5	33	66.7	443	47.6
12 and under 18 months	232	86.6	79	84.8	44	90.9	28	85.7	383	86.7
18 months and over	111	89.2	30	100.0	15	100.0	12	100.0	168	92.8
Total	1,144	38.8	384	42.7	174	51.1	126	63.5	1,828	42.5

Period of attendance in trade school.	Worcester Trade School.								Cambridge Trade School: dressmaking and millinery.		The three schools.	
	Dressmaking.		Millinery.		Power-machine operating on cloth.		Total.					
	Number trained.	Per cent using trade.	Number trained.	Per cent using trade.	Number trained.	Per cent using trade.	Number trained.	Per cent using trade.	Number trained.	Per cent using trade.	Number trained.	Per cent using trade.
Under 6 months	105	2.9	18	......	32	9.4	155	3.9	65	7.7	1,054	8.4
6 and under 12 months	52	13.5	12	16.7	17	52.9	81	22.2	27	37.0	551	43.4
12 and under 18 months	15	46.7	4	50.0	3	66.7	22	50.0	6	50.0	411	84.2
18 months and over	12	41.7	1	100.0	1	100.0	14	50.0	1	100.0	183	89.6
Gradnation	40	70.0	18	88.9	8	100.0	66	78.8	......	......	66	78.8
Total	224	22.3	53	39.6	61	37.7	338	27.8	99	19.2	2,265	39.3

---

[1] Not including 167 whose length of attendance was not reported.

It appears from this table that in the Boston Trade School only 9.4 per cent of those enrolled in the sewing courses for less than six months entered their trades as compared with 86.7 per cent of those who attended for a period of 12 months but less than 18, and 92.8 per cent of those attending 18 months or more. There is some variation in the different trades in this respect. A girl has little chance to use the dressmaking trade unless she has attended trade school six months or more. Her chances are better in power-machine operating on cloth, as one-sixth (16.7 per cent) of the girls remaining less than six months in this course used their trade, and in power-machine operating on straw hats, where 41.5 per cent of the pupils who had attended less than six months used their trade. The belief that a course in power-machine work may be shorter than a course in dressmaking or in millinery seems to be substantiated by the large proportions, two-thirds, of the girls remaining in these courses from 6 to 12 months who were able to use their trade, while only two-fifths of the dressmakers in attendance for this length of time went into dressmaking.

In the way of equipment for entering the trade in Worcester, the girl taking a sewing trade who has graduated from the school has a great advantage over the nongraduate. Only 15.4 per cent of the nongraduates against 78.8 per cent of the graduates have used their training. One-fifth (19.2 per cent) of the girls choosing the sewing trades have graduated, and this one-fifth has supplied more than one-half (55.3 per cent) of the girls who have used these trades. In Worcester a girl taking a sewing trade and remaining in the school less than six months has 1 chance in 25 to enter her trade; in Boston she has 1 chance in 11. On the other hand, if she remains in the school for 12 months or more she has in Worcester 7 chances in 10 and in Boston nearly 9 chances in 10 of entering her trade.

Taking all the schools together, without distinction as to trade studied, a course of 12 months seems necessary to give a girl a reasonable chance of entering her trade. There may be some question, however, whether this expenditure of time is due to the present organization of the courses or whether most of the girls would, under any circumstances, find it necessary for the development of the requisite degree of skill.

So far the discussion has related to those who entered their trade without reference to the time they remained in it. The question naturally arises whether length of training has any effect upon permanence in the trade after entrance. To test this a study was made of the pupils from the Boston school who had used their trades for at least one week, excluding those whose total working experience had been less than one year. With these limitations the group numbered 633, of whom 515 remained in the trade for which they had been trained one year or longer, and 118 remained less than a year. The following table shows the distribution of these two classes by length of training:

TABLE 23.—DISTRIBUTION, BY LENGTH OF TRADE TRAINING, OF BOSTON TRADE SCHOOL GIRLS USING THEIR TRADE LESS THAN ONE YEAR, AND FOR ONE YEAI OR MORE.

[This table includes all girls who used their trades for one week or more, but does not include those whose total working experience had been less than one year.]

Period of attendance in trade school.	Using trade less than one year.		Using trade one year or more.		Total.
	Number.	Per cent.	Number.	Per cent.	
Under 6 months	11	9.3	42	8.2	53
6 and under 12 months	28	23.7	147	28.5	175
12 and under 18 months	52	44.1	226	43.9	278
18 months and over	27	22.9	100	19.4	127
Total	118	100.0	515	100.0	633

It is impossible to discover in this table any particular relation between length of training and permanency in the trade. Of those who followed their trades less than one year, 33 per cent had less than 12 months in the school, while 67 per cent had 12 months or more; of those who followed their trade one year or more, 36.7 per cent had less than 12 months' training, and 63.3 per cent had 12 months or more. The percentages are so nearly the same that no conclusion can be drawn until more data upon the point can be obtained.

To sum up the situation, then, it appears that age, education, and length of trade training are important factors in determining whether or not a trade-school pupil will make use of her trade. Under 15, a girl has very little chance of entering her trade, and not until she is 16 are her chances even. From that age to 20 the likelihood of her using her training increases, but at 20 it begins to decrease, owing partly to the frequency with which she finds herself fit for better paying work. In regard to previous education, the girl who has completed the grammar grades has a far better chance of entering her trade than the one who leaves school before finishing the elementary grades. The length of trade training necessary for the best results varies widely, but in general the girl who wishes really to use her trade should take at least 12 months of training, while a longer period may or may not be advantageous, depending upon her natura aptitude, previous training, etc.

PLACEMENT BY BOSTON TRADE SCHOOL.

Another factor having an important bearing upon the girl's success is the manner of obtaining her first position. As has already been said, in Boston the school authorities try to place girls as soon as they are considered really qualified to enter their trades. Many of the pupils, however, are unwilling to or can not wait for the school's indorsement. Relatively only a small proportion of these enter their trade. Of the 788 girls from the Boston Trade School recorded as having used their trades, 658 were placed originally by the school; that is, practically five-sixths of all who entered their trades were placed by the school, against one-sixth who found places for themselves. The pupils placed by the school show a wide variation in their length of training, since, owing to differences in previous training and natural aptitude, one

TABLE 24.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS ATTENDING TRADE SCHOOL EACH SPECIFIED PERIOD, CLASSIFIED ACCORDING TO TRADE AND WHETHER PLACED BY THE SCHOOL OR SELF-PLACED.

[This table includes all the girls visited who used their trade one week or more, irrespective of the length of their total working experience.]

NUMBER.

Occupation and how obtained.	Girls attending trade school each specified period.				
	Under 6 months.	6 and under 12 months.	12 and under 18 months.	18 months and over.	Total.
Placed by the school:					
Dressmaking	8	75	169	90	342
Millinery	7	41	55	24	127
Power-machine operating on—					
Cloth	11	11	32	15	69
Straw hats	12	18	21	12	63
Cooking		3	1	1	5
Design		3	2		5
Total	38	151	280	142	611
Self-placed:					
Dressmaking	13	36	23	9	81
Millinery	6	8	12	4	30
Power-machine operating on—					
Cloth		6	6		12
Straw hats	5	2	2		9
Design		1			1
Total	24	53	43	13	133
Grand total	62	204	323	155	744

PER CENT.

Occupation and how obtained.	Under 6 months.	6 and under 12 months.	12 and under 18 months.	18 months and over.	Total.
Placed by the school:					
Dressmaking	2.3	21.9	49.4	26.3	100.0
Millinery	5.5	32.3	43.3	18.9	100.0
Power-machine operating on—					
Cloth	15.9	15.9	46.4	21.8	100.0
Straw hats	19.0	28.6	33.3	19.0	100.0
Cooking		60.0	20.0	20.0	100.0
Design		60.0	40.0		100.0
Total	6.2	24.7	45.8	23.2	100.0
Self-placed:					
Dressmaking	16.0	44.4	28.4	11.1	100.0
Millinery	20.0	26.7	40.0	13.3	100.0
Power-machine operating on—					
Cloth		50.0	50.0		100.0
Straw hats	55.6	22.2	22.2		100.0
Design		100.0			100.0
Total	18.0	39.9	32.3	9.8	100.0
Grand total	8.3	27.4	43.4	20.8	100.0

girl may be prepared for a trade in half the time required by another, and the placement depends upon ability to meet industrial demands without regard to length of time spent in the school. In general, however, length of training aids in giving the qualifications for a successful worker. Table 24 shows for each trade the number of girls from the Boston school who have been placed by the school and who have placed themselves, classified by the length of time spent in the school.

This table shows a striking increase in the proportion of girls placed by the school as the length of training increases. Summarizing its figures with respect to this feature, we have the following:

TABLE 25.—NUMBER AND PER CENT OF GIRLS PLACED BY SCHOOL AND SELF-PLACED, BY LENGTH OF TRADE TRAINING IN BOSTON TRADE SCHOOL.

Period of attendance in trade school.	Total girls placed.	Girls placed by school.		Girls self-placed.	
		Number.	Per cent.	Number.	Per cent.
Under 6 months	62	38	61.3	24	38.7
6 and under 12 months	204	151	74.0	53	26.0
12 and under 18 months	323	280	86.7	43	13.3
18 months and over	155	142	91.6	13	8.4
Total	744	611	82.1	133	17.9

This table shows how much more generally the school indorses and finds places for the girls taking a longer training than for those leaving under 12 months, but it shows little as to how helpful the school is in finding places. From Tables 16 and 25 the following figures on this point are obtained:

TABLE 26.—NUMBER OF GIRLS NOT PLACED BY SCHOOL AND PER CENT OF THESE WHO WERE SELF-PLACED, BY LENGTH OF TRADE TRAINING IN BOSTON TRADE SCHOOL.

Period of attendance in trade school.	Total leaving school.[1]	Number placed by school.	Number not placed by school.	Pupils self-placed.	
				Number.	Per cent of number not placed by school.
Under 6 months	857	38	819	24	2.9
6 and under 12 months	451	151	300	53	17.7
12 and under 18 months	387	280	107	43	40.2
18 months and over	169	142	27	13	48.1
Total	1,864	611	1,253	133	10.6

[1] Not including 180 whose length of attendance was not reported.

This gives some idea of the handicap under which a girl labors who is not placed by the school. The probability that she will enter her trade is never great, although it increases with her length of training. Still, even for the girl who has spent 18 months or more in the trade school, the chance that she will enter her trade, if she depends upon placing herself, is something less than 1 in 2, while for the girl who has had less than six months' training it sinks to about 3 in 100. It is worth noticing that the school's assistance seems more necessary in the less common trades than in dressmaking and millinery. The proportion of those entering each trade who were placed by the school and who placed themselves was as follows:

TABLE 27.—PER CENT OF BOSTON TRADE SCHOOL GIRLS ENTERING EACH SPECIFIED TRADE WHO WERE PLACED BY THE SCHOOL AND SELF-PLACED.

Trade.	Per cent placed by school.	Per cent self-placed.
Dressmaking	80.9	19.1
Millinery	80.9	19.1
Power-machine operating on—		
Cloth	85.2	14.8
Straw hats	87.5	12.5
Cooking	100.0	....
Design	83.3	16.7

The cooking, it must be remembered, is practically catering, a difficult business for any young girl to get into unaided.

From the standpoint of permanence in the trade, the school's judgment in placing the girls seems to be justified. Considering only the 633 girls who have had at least a year's industrial experience, 105 had secured their own positions and 528 had been placed by the school. Of those placed by the school only 15.9 per cent failed to remain in their trades for at least a year, while of those who placed themselves 32.4 per cent dropped out within a year.

REASONS FOR LEAVING TRADE SCHOOLS.

Less than one-third of the pupils leaving the Boston Trade School were accredited by the school; less than one-fifth of those leaving the Worcester Trade School had graduated. The reasons for leaving the schools are suggestive to educators, particularly to teachers in vocational schools. The trade schools try to learn from each pupil her reason for leaving and to record this for future use. Table 28 gives the recorded reasons for leaving of 2,066 girls, the reasons not having been ascertained or at least not recorded for the remaining 434.

There is a discrepancy between the numbers shown on these records as having left school to go to work, and the numbers found by this investigation to have gone to work. Thus, the figures given in this table show that 32.9 per cent of the Boston Trade School pupils left to go to work in their own trades, while the figures of this investigation[1] show that 38.6 per cent used their trade a week or more; for

---

[1] See Table 10, p. 29.

Worcester the records show 22.7 per cent going into their own trades, while the investigation showed 27.4 per cent of the total of 343 girls had used their training. In Cambridge the investigation showed 23 per cent, instead of the 9.7 per cent reported, going into their trades. It is evident, then, that the schools have sent more pupils into their trade than the records indicate.

TABLE 28.—NUMBER AND PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL GIRLS LEAVING TRADE SCHOOL FOR EACH SPECIFIED REASON AS GIVEN IN THE TRADE-SCHOOL RECORDS.

Reason for leaving trade school.	Girls reported as leaving each trade school for specified reason.							
	Number.				Per cent.			
	Boston.	Worcester.	Cambridge.	Total.	Boston.	Worcester.	Cambridge.	Total.
Placed by the school	585	....	8	593	28.6	....	7.1	23.7
Self-placed	88	[1] 78	3	169	4.3	22.7	2.7	6.8
Other work:								
Manufacturing	50	24	6	80	....	....	....	....
Personal service	16	11	....	27	....	....	....	....
Store	39	11	....	50	....	....	....	....
Office	22	4	....	26	....	....	....	....
Unclassified	[2] 3	....	....	3	....	....	....	....
Total	130	50	6	186	6.4	14.6	5.3	7.4
Work unknown	141	7	....	148	6.9	2.0	....	5.9
School reasons:								
Absence	82	6	....	88	....	....	....	....
Vacation	22	17	....	39	....	....	....	....
Expulsion	[3] 35	1	....	36	....	....	....	....
Other	1	....	....	1	....	....	....	....
Total	140	24	....	164	6.8	7.0	....	6.5
Went to another school	237	25	1	263	11.6	7.3	.9	10.5
Personal:								
Incapacity	29	29	4	62	....	....	....	....
Incompatability	48	7	25	80	....	....	....	....
Married	9	2	....	11	....	....	....	....
Total	86	38	29	153	4.2	11.1	25.7	6.1
Health	123	38	13	174	6.0	11.1	11.5	7.0
Home causes:								
Economic pressure	3	1	14	18	....	....	....	....
Needed	83	36	17	136	....	....	....	....
Other	8	4	3	15	....	....	....	....
Total	94	41	34	169	4.6	12.0	30.1	6.8
Moved	38	7	....	45	1.9	2.0	....	1.8
Died	1	....	1	2	(4)	....	.9	.1
Not reported	381	35	18	434	18.6	10.2	15.9	17.4
Grand total	2,044	343	113	2,500	100.0	100.0	100.0	100.0

[1] 36 said that the trade school helped them to get the first position.
[2] 1 taught kindergarten, 1 taught music, 1 went into dancing.
[3] 1 too old to enter trade school.
[4] Less than one-tenth of 1 per cent.

Taking the reasons as recorded, however, in Boston and Worcester the most influential reason was the desire to go to work, accounting for two-fifths of those leaving in Worcester and for almost one-half in Boston, while no other single cause accounts for as much as one-sixth of the group. A matter of interest is the small proportion of cases in which economic pressure is the direct cause of leaving school, only three pupils in Boston and one in Worcester leaving on this account.[1] Another point of interest is the proportion of pupils who were deemed better fitted for the work of other schools and accordingly were transferred. In Boston 11.6 per cent of the trade-school pupils are reported to have returned to other schools. Of these, however, two-thirds (65 per cent) were pupils who enrolled in the summer course. Omitting these summer school pupils, 4.1 per cent of the whole Boston group returned to high or grammar school. The trade-school history thus throws some light on the much vexed school question of "drop-outs."

Summing up this study of the trade-school pupil, it appears that the type of pupil attending the Boston Trade School has changed somewhat in the 10 years covered by this investigation. Pupils are a little more mature at entrance than they were when the school began; they have reached a somewhat higher level of academic education, and they spend a longer time at the trade school. The change has been slow; but the conclusion that it has not been entirely due to changed conditions in industry seems to be supported by the discovery that the experience of the recently established schools in Worcester and Cambridge resembles the history of the Boston school from 1904 to 1909, rather than that of the succeeding five years. In general, however, the trade schools still attract the same kind of girl they attracted in the beginning—the girl who must enter industry at a comparatively early age, but who can afford a limited time for preparation.

There can be no doubt as to the public demand for training such as the girls' trade schools offer for this type of pupil, and the variations within the type seem fairly fixed. The future success of the trade school will depend on its ability to adapt its courses (1) to the type of pupil it has attracted in such numbers, and (2) to the changing demands of the trades for which it attempts to train.

PREVAILING MISCONCEPTIONS OF SCOPE OF TRADE-SCHOOL WORK.

The trade school for girls "seeks to direct them into better industries and to increase their wage-earning powers to such an extent that the wage lost by spending time at school is more than made up in the first year at the trade."[2] But from numerous directions come complaints that the school has not fulfilled its purpose. Says the social worker, "She was exceptionally bright but she hated to work with the needle, so the school did not help her at all." The complaint comes from the parent, "She graduated at school as a dressmaker, but she could not cut or fit," and from the employer, "I supposed when I got a trade-school girl, I had an experienced worker." Another employer turned a trade-school girl off because "at the rate she was going she would earn about 19 cents a week, yet they recommended her at the school as a good worker."

---

[1] The comparatively small part played by economic necessity in forcing children to go to work has been brought out in other investigations. See Report on conditions of woman and child wage earners in the United States, Vol. VII (S. Doc. No. 645, 61st Cong., 2d sess.); Report of Massachusetts Commission on Industrial and Technical Education, April, 1906; A trade-school for girls, U. S. Bureau of Education, Bulletin, 1913, No. 17; Helen T. Woolley: Charting childhood in Cincinnati, in Survey, Aug. 9, 1913.

[2] Third Annual Report of Boston Trade School for Girls, 1917, p. 19.

All these criticisms are based on a misconception of what the trade school does and can do. In answer to the complaint of the social worker, the schools reply that they do not undertake to teach all trades, but have chosen a few which, they believe, offer opportunity for skilled work. Those who can not acquire the requisite skill or who do not like these trades are necessarily sifted out. The trade schools are, however, continuously seeking new fields which may offer good work for girls. In reply to the parent's complaint, the schools point out that they do not aspire to teach the whole trade in the short time they are able to hold the girl, but try instead to give her some of the fundamentals which she can utilize immediately. She does not, therefore, with one year's training cut and fit, though cutting and fitting are offered to former pupils of the Boston Trade School who return for further training.

The employer's complaint, likewise, is looked upon as due to a misunderstanding of what the school can do and what its indorsement of a pupil means. If it were possible to duplicate shop conditions exactly in the school, some of the difficulties of adjusting a pupil to trade conditions might be met. But believing this to be incompatible with the best interests of training, the school seeks to give the fundamental principles of each trade, and the ability to apply these principles to new problems must come with experience. While the girl thus gains a more extensive knowledge of the work than she would probably get during the same length of time in the shop, she can not be called an experienced worker in any one process. Nor can she always "see what to do next" or how to "keep busy" without direction, for she has been accustomed to close supervision in the school. The teacher can not always gauge correctly a pupil's trade proficiency, for the girl who is successful in school may be paralyzed by the rush and requirements of the shop, while the girl who in school is lackadaisical may respond with enthusiasm to the stimulus of the actual shop. The schools try, however, to give a training which will enable the girl to meet to some degree the demands of the shop. Before a pupil graduates from the Worcester school or is placed by the Boston school she must have attained a requisite minimum of speed, as well as a trade standard of finish. This speed is measured by time cards, kept by the girls, from which they must themselves estimate the wages they are worth. Each garment is marked with the cost of materials and the number of hours required by the girl for its construction. By these means it is possible to form some idea of what a girl's industrial capacity is, but the difference between shop and school conditions prevents this idea from being more than a mere approximation. It is impossible to require actual trade speed in the school; the pupils must acquire this in the shop.

ADJUSTMENT OF TRADE-SCHOOL PUPILS TO THE TRADE.

Under any circumstances a worker coming into a factory or shop where she has never worked before has to go through a process of adjustment to the new conditions before she can gain her maximum productivity. How does the trade-school girl compare in this respect with the untrained worker, or with the worker who has gained her experience in the trade? The question is an important one, on which it is difficult to secure data. A curtain factory in Boston, however, has a very unusual and complete system of records which gives some light on this much-discussed question.[1] It pays a fixed minimum weekly wage with a bonus for all work produced in excess of a certain established standard; new workers are supposed to be able to reach this standard in eight weeks. The records of three girls employed here were taken for comparison. Case A was a young, untrained worker, aged 19 years, running a power machine at a minimum $6 rate.[2] Case B was a trade-school girl, aged 18, who had attended the dressmaking course in the trade school 22 months, worked for a dressmaker eight months, and then returned to the trade school for a six weeks' course in power-machine operating. She went into the curtain factory on a $6 weekly rate. Case C was an experienced worker who had been a machine operator on curtains for two years previous to entering this factory, and who worked at a weekly rate of $7. Table 29 shows the value of the work produced by each of these workers each week for the first eight weeks of her engagement.

Comparing the two young workers, it appears that, with the exception of the second week, the untrained girl exceeded the trade-school girl in value of product turned out for six weeks. During this time she twice turned out work to a value exceeding her weekly rate, while the trade-school girl never reached her rate. In the seventh week, however, the trade-school girl suddenly sprang to the lead with a productivity which not only earned her wage but a substantial bonus. In the eighth week her product was more than half as large again as the untrained girl's. During the whole eight weeks case A turned out product to the value of $45.24, and case B to the value of $47.66. The trade-school girl appears to have been somewhat slower in getting used to the shop than the untrained girl, but the first period of adjustment over, gave indications of being a more even and reliable worker than the other. For the eight weeks regarded as a usual training period, her record is slightly better than that of the untrained girl. Case C shows that even an experienced worker is handicapped in a new position by the necessity for adjustment. For her first week she made a far worse showing than either of the two young girls, and it was not until the fifth week that she earned the minimum wage at which she entered.

---

[1] Six trade-school girls appeared on the pay roll of this factory, and the experience of five of them is given. The sixth remained only four weeks, produced work to the value of $1.30, for which she was paid $20.70, and returned to the trade school. Physical conditions in this factory are unusually good, the attitude of the management is kindly, and all the trade-school girls were treated with great consideration.

[2] All the data as to wages in this factory were obtained from the pay roll. Data as to amount of product were obtained from the factory records of individual girls.

TABLE 29.—COMPARATIVE PRODUCTIVITY DURING FIRST EIGHT WEEKS IN FACTORY OF AN UNTRAINED GIRL, A TRADE-SCHOOL PUPIL,[1] AND AN EXPERIENCED WORKER.

Week.	Value of work produced by—		
	Case A: Untrained worker.[2]	Case B: Trade-school girl.[2]	Case C: Experienced worker in a new factory.[3]
First	$3.99	$5.21	$2.54
Second	4.65	4.66	6.22
Third	5.53	4.21	5.39
Fourth	6.33	5.73	6.59
Fifth	6.16	[4] 5.78	7.11
Sixth	[5] 5.14	4.37	7.42
Seventh	8.00	8.62	6.78
Eighth	5.44	9.08	7.02

[1] Placed by the trade school in dressmaking September, 1913, December, 1913, and January, 1914, and in this position, August, 1914.
[2] Working on a $6 rate.
[3] Working on a $7 rate.
[4] Five days.
[5] Four days.

Since all these workers were being paid a fixed minimum wage with a bonus for production above a certain standard, the difference between this flat rate and the value of their production may be regarded as the employer's profit or loss, according to where the difference lies, on their work for the eight weeks, or as his cost of inducting them into the ways of his factory. The average value of product during the eight weeks was for the untrained girl $5.66, for the trade-school girl $5.96, and for the experienced worker $6.13. Since the two girls were being paid $6 and the experienced worker $7 a week, the employer's cost of training was for the untrained girl 34 cents, for the trade-school girl 4 cents, and for the experienced worker 87 cents a week. Apparently in this case, experience in the trade was of no benefit in falling into the ways of this particular factory.

Another illustration of the difficulty a young trade-school girl finds in meeting shop demands, and of the cost to the employer of inducting such girls, is shown in the following table:

TABLE 30.—WORK DONE AND AMOUNT PAID TO A TRADE-SCHOOL GIRL FOR 10 WEEKS IN HER FIRST POSITION, AS HEMSTITCHER, IN A CURTAIN FACTORY.[1]

Day.	Amount of work done (pairs).	Value of work done.	Amount paid.
First week	(2)	....	$3.24
Second week:			
1st day	29	$0.58	
2d day	(2)	....	
3d day	58	1.16	
4th day	29	.58	
5th day	36	.72	
6th day	18	.36	
Total	170	3.40	6.00
Third week:			
1st day	29	.58	
2d day	(2)	....	
3d day	50	1.00	
4th day	25	.50	
5th day	63	1.26	
6th day	37	.74	
Total	204	4.08	6.00
Fourth week:			
1st day	24	.48	1.08
[Returned to trade school for three months.]			
3d day [3]	129	.65	
4th day [3]	18	.09	
5th day [3]	131	.66	
6th day [3]	(4)	....	
Total	278	1.40	3.24
Fifth week:[3]			
1st day	(2)	....	
2d day	(2)	....	
3d day	(2)	....	
4th day	160	.80	
5th day	216	1.08	
6th day	210	1.05	
Total	586	2.93	6.13
Sixth week:[3]			
1st day	235	$1.18	
2d day	109	.54	
3d day	166	.83	
4th day	144	.72	
5th day	162	.81	
6th day	211	1.05	
Total	1,027	5.13	6.23
Seventh week:[3]			
1st day	257	1.28	
2d day	128	.64	
3d day	206	1.33	
4th day	216	1.08	
5th day	221	1.10	
6th day	49	.49	
Total	1,077	5.62	6.53
Eighth week:[3]			
1st day	(4)	....	
2d day	135	.67	
3d day	93	.47	
4th day	90	.45	
5th day	108	.54	
6th day	68	.34	
Total	494	2.47	6.07
Ninth week	(4)	....	
Tenth week:[5]			
1st day	16	.32	
2d day	(2)	....	
3d day	105½	2.11	
4th day	94	1.88	
5th day	90	1.80	
6th day	105	2.10	
Total	410½	8.21	8.68

[1] Placed in her position here by the trade school, July, 1914.
[2] Not recorded.
[3] Hemming tops.
[4] Absent.
[5] Hemstitching curtains.

This girl was placed in her position by the trade school, July, 1914, at an initial wage of $6 a week, and was supposed to hemstitch on the machine 50 pairs of curtains a day at 2 cents a pair to earn the $1 a day which she was being paid. For the first week her daily production was not recorded. The second week she turned out work to the value of $3.40 and the third to the value of $4.08, and at the beginning of the fourth week went back to the trade school for further training. Returning after three months she was set to hemming tops, the simplest of all the processes, and at this worked five weeks without once reaching the standard of production. Then the tenth week she was put back to hemstitching curtains, and like the trade-school girl shown in the preceding table, suddenly shot up to a productivity considerably in excess of the standard. During the eight weeks of employment she turned out work to the value of $33.72, for which she was paid $49.96. Thus it cost the employer, without counting supervision, trouble, etc., $16.24 to induct her into the shop.

While a trade-school girl can not immediately do the full amount of work she is capable of, the training she has received should shorten the period of adjustment to factory conditions and make her induction less expensive to the employer than that of an untrained girl. This was actually so in the case of the two workers without trade experience shown in Table 29. The relative cost of adjustment of two other workers, one a trade-school girl, the other an inexperienced worker, is shown in the following table:

TABLE 31.—RELATIVE COST TO EMPLOYER OF TRAINING A TRADE-SCHOOL GIRL AND AN UNTRAINED GIRL IN POWER-MACHINE OPERATING.[1]

Date.	Trade-school girl.[2]				Untrained girl.			
	Amount of work done.	Value of work done.	Amount paid.	Loss to firm.	Amount of work done.	Value of work done.	Amount of work	Loss to firm.
	Pairs.				*Pairs.*			
Mar. 27	91	$0.91			35	$0.35		
Mar. 28	41	.41			6	.06		
Mar. 30	81	.81			32	.32		
Mar. 31	77	.77			14	.14		
Apr. 1	(4)	....			12	.12		
Apr. 2	(4)	....			50	.50		
Total	290	2.90	$6.00	(3)	149	1.49	$6.00	$4.51
Apr. 3	79	.79			39	.39		
Apr. 4	57	.57			34	.34		
Apr. 6	70	.70			30	.30		
Apr. 7	110	1.10			53	.53		
Apr. 8	90	.90			18	.18		
Apr. 9	91	.91			45	.45		
Total	497	4.97	6.00	$1.03	219	2.19	6.00	3.81
Apr. 10	86	.86			(3)	....		
Apr. 11	50	.50			(4)	....		
Apr. 13	83	.83			[5] 12	.12		
Apr. 14	100	1.00			[6] 55	.28		
Apr. 15	[7] 82	.73			90	.45		
Apr. 16	[8] 48	.42			55	.28		
Total	[9] 449	4.34	6.00	1.66	[10] 212	1.13	4.92	3.79
Apr. 17	[11] 78	.69			68	.34		
Apr. 18	50	.50			9	.05		
Apr. 19	(12)	....			(12)	....		
Apr. 21	99	.99			48	.24		
Apr. 22	98	.98			70	.35		
Apr 23	104½	1.05			55	.28		
Total	[11] 429½	4.21	4.92	.71	250	1.26	4.92	3.66

---

[1] Standard rate, 100 hems a day, one cent each, or 200 headings a day, one-half cent each. Minimum flat rate, $1 a day, $6 a week.

[2] Had attended trade school 17 months and had had 2 months' experience in machine operating. First placed by the trade school February, 1913; replaced February, 1914, and received her certificate April, 1914.

[3] Record not complete.

[4] Fixing poor work.

[5] Hems.

[6] From this time on this girl worked on headings.

[7] Including 19 pairs of headings.

[8] Including 12 pairs of tops.

[9] Including 19 pairs of headings and 12 pairs of tops.

[10] Including 12 hems.

[11] Including 18 pairs of tops.

[12] Holiday.

TABLE 31.—RELATIVE COST TO EMPLOYER OF TRAINING A TRADE-SCHOOL GIRL AND AN UNTRAINED GIRL IN POWER-MACHINE OPERATING—Concluded.

Date.	Trade-school girl.				Untrained girl.			
	Amount of work done.	Value of work done.	Amount paid.	Loss to firm.	Amount of work done.	Value of work done.	Amount paid.	Loss to firm.
	Pairs.				*Pairs.*			
Apr. 24	105	$1.05			85	$0.42		
Apr. 25	26	.26			39	.20		
Apr. 27	163	1.63			64	.32		
Apr. 28	111	1.11			89	.45		
Apr. 29	99	.99			71	.36		
Apr. 30	[1] 31	.15			78	.39		
Total	[2] 535	5.19	$6.79	$1.60	426	2.14	$6.00	$3.86
May 1	82	.82			61	.31		
May 2	43	.43			40	.20		
May 4	80	.80			60	.30		
May 5	[3] 105	.93			32	.16		
May 6	[4] 149	1.46			84	.42		
May 7	[1] 99	.50			383	1.92		
Total	[5] 558	4.94	6.46	1.52	660	3.31	6.00	2.69

[1] Headings.
[2] Including 31 pairs of headings.
[3] Including 24 pairs of headings.
[4] Including 6 pairs of headings.
[5] Including 120 pairs of headings.

In this case the first girl had spent 17 months in the trade school, and had also worked 2 months on a power machine in another factory, while the second girl was wholly inexperienced and untrained. They entered the factory at the same time. At the end of her fifth week in the factory the trade-school girl had come within 81 cents of producing the minimum amount of work for which she was paid.[1] Not until the thirteenth week did she produce the full amount, and she did not produce this amount regularly until she had been at work for five months. The inexperienced girl worked 12 weeks before she produced the $6 she was paid. During the first six weeks covered by the table, the employer, apart from cost of supervision, etc., lost $6.52 on the work of the trade-school girl and $22.32 on the work of the untrained girl. After 26 weeks he gave this second girl up as hopeless, and she was dismissed. The trade-school girl in April, 1914, received her certificate from the school.

There seems some reason for concluding that a trade-school girl reaches her full productivity in a factory in a shorter time than an untrained girl, i. e., that her shop training is less expensive for the employer. After this period of initiation does her school training give her any permanent advantage? The following table gives the weekly product for a number of weeks of two pairs of workers, each pair consisting of one trade-school and one trade-trained girl, the members of each pair having approximately the same amount of experience, and all having served their initiatory period in the factory in which they were employed when these records were kept.

---

[1] If the worker exceeds the standard rate of $1 a day on any particular day, this excess amount is paid as a bonus, even though she may fall below the standard amount of production on another day. Thus, this girl in her fifth week received $6.79, because she had exceeded the standard on three days, but her weekly output was below the standard rate.

TABLE 32.—COMPARATIVE PRODUCTIVE CAPACITY OF TRADE-SCHOOL AND TRADE-TRAINED GIRLS IN POWER-MACHINE OPERATING AFTER THREE AND AFTER FIVE YEARS OF EXPERIENCE.

Week.	Amounts earned each specified week in power-machine operating after—				
	Three years' experience by—		Week.	Five years' experience by—	
	Trade-school girl.[1] (Case D.)	Trade-trained girl. (Case E.)		Trade-school girl.[2] (Case F.)	Trade-trained girl. (Case G.)
September:			May:		
1st week	$7.62	$8.94	1st week	$6.60	$10.27
2d week	5.27	6.38	2d week	8.88	4.74
3d week	7.80	7.08	3d week	8.13	8.53
4th week	7.74	6.30	4th week	8.04	9.57
5th week	8.66	9.34	June:		
October:			1st week	6.48	7.50
1st week	7.00	7.73	2d week	8.00	9.15
2d week	6.86	6.16	3d week	6.64	7.65
3d week	7.58	8.87	4th week	4.80	5.74
4th week	6.13	10.21	July:		
November:			1st week	5.76	5.04
1st week	7.14	9.30	2d week	8.00	7.00
2d week	7.02	10.45	3d week	8.00	7.00
3d week	8.10	10.25	4th week	8.00	7.00
4th week	6.56	7.85	August:		
December:			1st week	8.25	6.37
1st week	8.98	11.20	2d week	6.56	7.00
2d week	9.42	8.28	3d week	8.14	9.15
3d week	8.90	8.91	4th week	8.21	10.98
4th week	9.05	7.00			
5th week	5.88	5.36			
Total	135.71	149.61	Total	118.49	122.69
Average wage for above period	7.54	8.31	Average wage for above period	7.41	7.67
Average weekly wage for the year	6.89	11.20	Average weekly wage for the year	7.49	7.85

Cases D and E were the same age, 21 years, and each received a flat rate of $7 a week, with a bonus for overproduction. Case D, the trade-school girl, had worked 18 months on handwork in a curtain factory before entering the trade school. After a ten months' course in power-machine operating on straw hats, she entered a hat factory for 5 months. She returned in the dull season to the school for a four months' course in power-machine operating on cloth, and when interviewed had been for a year and three months in the curtain factory. Case E, the trade-trained girl, had had three and a half years' experience in selling and office work, and three years' experience in power-machine operating. Case D, who had had three years and two months' working experience and 14 months in the trade school, earned during the last four months of 1914, as shown in the table, $135.71, and her average weekly wage for this period was $7.54. Case E earned during the last four months of 1914, $149.61, and her average weekly wage for this period was $8.31. If the trade-school training equals the trade experience, both had had about three years' experience in power-machine operating, and they were the same age, but the trade-school girl earned, on an average, 77 cents per week less than the trade-trained girl.

---

[1] Placed by the trade school in straw stitching, December, 1912, and June, 1913; placed in this position November, 1913.

[2] Placed by the trade school April, 1911, in another curtain factory. Received her certificate, October, 1913.

In the second group, Case F, a trade-school girl who had spent two years in the dressmaking and machine-operating courses and had been working at power-machine operating for three years and three months, might be said to have had five years' experience. Comparing her productive capacity with that of a trade-trained girl (Case G) who had had five years' experience we find that while their production for any given week may vary rather widely, for the four months covered it averages very nearly the same—$7.41 against $7.67. Their average weekly wages for the whole year were also nearly the same, the trade-school girl's being $7.49 and the other's, $7.85. In both these instances, therefore, the trade-school girl falls a little below the trade-trained girl in productive capacity after an equal experience in the trade.

A few cases, of course, offer a wholly insufficient basis for any conclusion, but the pay roll of this factory gives further evidence in the same direction. Capable workers can earn a fair wage, about 60 per cent earning $7 or over per week. The trade-school girls in this particular factory do not show superior productive capacity. The chief advantage they gain from their trade-school work is greater ease in securing access to the factory, for comparatively few employers will take wholly inexperienced workers. The school aids its pupils in securing entrance and offers supplementary training to strengthen their deficiencies. But this limited data does show the trade school which has sought to train these girls, and educators, who after one glance, assume that power-machine operating is a simple process which can be acquired in a few hours, that there is a pressing need for a more careful analysis of the occupations in this industry and their requirements from the standpoint of trade knowledge, skill, maturity, and adjustment. The Boston Trade School, as has been shown by the enrollment in its courses, has given little emphasis to this factory industry. But the growth of the wholesale manufacturing and the decline of the hand trades will require that more attention be given to this branch of the sewing trades, and when the trade school attacks this problem in the same spirit as that in which it has taken up the custom trades, a better showing may be expected.

Returning to the length of time required for adaptation to actual trade conditions, it may be noted that this seems to be underestimated by most writers, who are inclined to think that "at the present day this mechanical skill is easily obtained. To the young schoolgirl whose muscles are all responsive and trained, a little practice on power machines in the schools would prepare her to be employed in the factory at once at the wage of an experienced worker. She could sit down at a power machine and become a pieceworker without delay because she knows how to control her machine."[1] The pay roll data of production and the unanimous report of all the employers visited seem to indicate (1) that experienced workers require a month to adjust themselves to new conditions; (2) that untrained workers require from one month to two to reach even once the minimum standard of production, and a still longer time to maintain it continuously; and (3) that judgment, speed, and manual dexterity are the real basis of success, not merely "a little practice on power machines in the schools."

SCHOOL TESTS FOR ASCERTAINING TRADE ABILITY.

The trade school admits every girl between 14 and 25 years of age who applies, but since the trades for which it offers training require certain definite qualities, and since not all girls possess these qualities, it is most important that some devices should be evolved to ascertain as soon as possible the pupil's fitness for these trades. Three such devices are in use, preliminary conferences with child and parent, emphasis on the summer school session as an opportunity for testing out the pupil, and subsequent shifting from one course to another in order to find out for what the pupil is really adapted.

In Worcester the first device is emphasized. The applicant must register at the school and fill out a detailed application blank which requires some intelligence and thought and provides some index of the girl's capacity. Her parents are urged to come and discuss with the teachers the course she has chosen, that they may clearly understand what to expect of the girl and of the school, and they are kept informed of her progress by weekly or monthly reports.

In both Boston and Worcester the summer session of the school is used extensively as an opportunity for testing out applicants with less loss to both pupils and school. In Boston there has been a change of policy in this respect. From 1904 to 1909 pupils were allowed to enter the summer school in order to make their own clothes even though they had no intention of remaining for the regular term. Since 1909, however, the summer session has been conducted under the same rules as the regular term, and only pupils who have some intention of remaining are admitted. The Worcester Trade School definitely requires that all new pupils wishing to enroll in September shall enter in June; the Boston school does not make this course obligatory, but urges it. Those who enter have the opportunity of finding out during this short term whether the training is what they wish, and whether they are qualified to take it to advantage; if not, they can reenter the regular schools at the fall term without any loss of time such as they would incur if they entered the trade school in September and later found themselves unsuited to it. The following table shows for each year what proportion of the pupils entering the summer session of the Boston and the Worcester trade schools remained for the fall term:

---

[1] Anna C. Hedges: Wage worth of school training, p. 7.

TABLE 33.—NUMBER AND PER CENT OF PUPILS ENTERING THE SUMMER SESSION OF THE BOSTON AND WORCESTER TRADE SCHOOLS WHO REMAINED AND WHO DID NOT REMAIN FOR THE FALL TERM.

BOSTON TRADE SCHOOL.

Summer of—	Girls enrolled in the summer session.[1]						
	Number.				Per cent.[2]		
	Remaining.	Not remaining.	Not reported.	Total.	Remaining.	Not remaining.	Total.
1904	15	16	....	31	48.4	51.6	100.0
1905	14	22	....	36	38.9	61.1	100.0
1906	25	39	....	64	39.1	60.9	100.0
1907	36	42	....	78	46.2	53.8	100.0
1908	45	96	....	141	31.9	68.1	100.0
1909	37	49	....	86	43.0	57.0	100.0
Total	172	264	....	436	39.4	60.6	100.0
1911[3]	26	10	24	60	72.2	27.8	100.0
1912	30	4	3	37	88.2	11.8	100.0
1913	22	20	....	42	52.4	47.6	100.0
Total	78	34	27	139	69.6	30.4	100.0
Grand total	250	298	27	575	45.6	54.4	100.0
WORCESTER TRADE SCHOOL.							
1912	7	15	....	22	31.8	68.2	100.0
1913	3	11	....	14	21.4	78.6	100.0
1914	9	25	....	34	26.5	73.5	100.0
Total	19	51	....	70	27.1	72.9	100.0

[1] Includes only girls entering trade school for the first time in the summer.
[2] Based on number for whom reports were received.
[3] No summer session was held in 1910.

In the Boston school the proportion remaining for the fall term has increased materially since 1909, when the summer session was put under the same rule as the regular sessions. This may be due to the fact that the earlier plan attracted a number who had no intention of remaining, or it may simply be a change similar to that found among the pupils of the school as a whole; it will be remembered that those entering during the last five years of the period studied were a less shifting group than those of the first period. In Worcester the proportion remaining for the fall session has been small for the whole period considered; no explanation of this fact is offered.

Classified by the reasons they give for not continuing in the trade school, the pupils of the trade schools in the two cities show a very different grouping. The following table gives the number and proportion leaving for each reason:

TABLE 34.—NUMBER AND PER CENT OF GIRLS WHO ENTERED THE SUMMER SESSION OF THE BOSTON AND WORCESTER TRADE SCHOOLS, GIVING EACH SPECIFIED REASON FOR NOT REMAINING FOR FALL SESSION.

Reason for not remaining for fall session.	Girls entering summer session of specified trade school but not remaining for fall session.							
	Number.					Per cent.[1]		
	Boston Trade School.			Worcester Trade School.	Total.	Boston Trade School.	Worcester Trade School.	Total.
	1904-1909	1909-1914	Total.					
Went to work:								
In her trade	4	....	4	1	5	....	....	....
In manufacturing	8	....	8	1	9	....	....	....
In personal service	1	....	1	1	2	....	....	....
In a store	1	1	2	....	2	....	....	....
In an office	2	....	2	....	2	....	....	....
Work unknown	6	5	11	....	11	....	....	....
Total	22	6	28	3	31	10.3	9.7	10.2
Returned to school	154	17	171	10	181	62.6	32.3	59.5
School reasons:								
Absence	31	....	31	....	31	....	....	....
Expulsion	4	....	4	....	4	....	....	....
Vacation	10	....	10	....	10	....	....	....
Total	45	....	45	....	45	16.5	....	14.8
Personal reasons:								
Health	15	....	15	4	19	....	....	....
Incapacity	2	1	3	9	12	....	....	....
Incompatability	2	....	2	....	2	....	....	....
Total	19	1	20	13	33	7.3	41.9	10.9
Home causes:								
Economic pressure	1	....	1	....	1	....	....	....
Needed	5	....	5	3	8	....	....	....
Moved	1	1	2	1	3	....	....	....
Other reasons	1	....	1	1	2	....	....	....
Total	8	1	9	5	14	3.3	16.1	4.6
Not reported	16	9	25	20	45	....	....	....
Grand total	264	34	298	51	349	100.0	100.0	100.0

[1] Based on number of girls whose reasons for leaving were known.

In Boston by far the largest proportion left in order to return to the regular schools, and the next largest for some school reason. These school reasons, however—absence, expulsion, and vacation—were given in the Boston school only during the first five years of its history, before its purpose and methods were thoroughly understood. In Worcester the largest number left for personal reasons, among which incapacity plays the most prominent part, and the number returning to the regular schools is, proportionately, only about one-third as large as in Boston. The proportion leaving in order to go to work is small in both cities, and so is the proportion leaving for home causes. Among these pupils economic pressure as a reason for leaving is even less important than among the pupils of the school as a whole.

The preliminary conference with pupils and parents and the summer sessions are both useful in discovering what aptitude a girl may possess for her chosen trade, but in addition both schools make use of the plan of changing a pupil from one course to another, if she does not seem suited to the first. In the Boston Trade School records 123 pupils, 6 per cent of the total group of 2,044, were reported as enrolled in two or more courses. The most frequent sequence seems to be from custom work in dressmaking or millinery to power-machine operating on hats or cloth. Of the 123 girls who changed from one course to another, two-fifths (40.7 per cent) never used either trade; this probably means that the pupils were unfitted to succeed in any of the trades taught by the school. In Worcester, 12 girls, 3.5 per cent of the whole number, took a part of two courses, beginning usually with dressmaking or millinery and then being tried on power-machine operating.

SPECIAL METHODS FOR ADAPTING PUPILS TO TRADE DEMANDS.

In addition to a general knowledge of the trade they have chosen, industry demands of the workers "common sense" or general intelligence, and trade skill, and an important part of the trade-school work consists of qualifying the pupil to meet these demands. The task of developing common sense, which is difficult because of the immaturity of the girls and the indefiniteness of the demand, devolves partly on the trade teachers and partly on the academic teachers in the trade schools. The academic teachers have reduced to as systematic a form as possible the general knowledge about the trades which the trade teachers have acquired by experience. As the pupils are too young to be taught theory alone, they are given such principles as they need to do their work intelligently. The teaching in arithmetic, art, and English is based on the trade work, and in the trade classes a constant demand for reasoning is made. As it is a manifest impossibility to develop resourcefulness in pupils by unsystematic means, the blending of theory and practice devised by trade schools in their supplementary courses is probably the best available substitute for actual shop experience as a training for meeting new problems.

The demand for trade skill is less indefinite than that for common sense, and is easier to meet, since skill can be given by repetition and variation of processes. The acquisition of skill requires practice on the actual product which the trade produces. For this reason, the production of salable articles has been the goal since the beginning of the trade-school experiment. The rooms used for trade work, the methods, standards, and materials resemble as closely as possible those of the trade, and the product of each school is sold at market prices to regular customers.

The making of a salable product holds two elements of danger, recognized as such by the schools themselves: First, the gauging of the success of the school by the money value of the product, and second, the subordinating of the training of the pupil to the production of standardized goods. As to the first, it must be borne in mind that trade schools can never hope to be even approximately self-supporting. The revenue derived from the sale of their products varies from 14.7 per cent to 29.5 per cent of their cost of operation.[1] The real test of the success of a trade school is the success of its pupils in their trades, and it is a menace to the fundamental conception of the school to apply any other test to its work.

The second danger is closely connected with the first. When a pupil has learned to perform a given process well and quickly there is a temptation to keep her on that process for the sake of the output, if the product is to be sold, and if, therefore, her skill and speed have a money value. In fact, parents are inclined to complain that their daughters are kept too long on processes in which they exhibit unusual skill, but the complaint does not seem well grounded. The figures already given (see Table 24) show that among the girls placed by the Boston Trade School there was a wide variation in the time spent in training; if the school were trying to keep a girl as long as possible in one process for the sake of utilizing her special skill, it would hardly have placed nearly 200 girls who have been in training for less than 12 months. In Worcester, it is true, no girl may graduate with less than two years of training, but the girl of unusual ability can complete in this time work much greater in amount and more varied in process than the girl of less capacity, and her time is spent in gaining this extra experience, not in repeating one process.

When the experiment in trade training was still new the possibility of a third danger was seen in the opportunity for competition between the trade school and the manufacturer in the disposal of their products, but this fear has proved unfounded. Trade schools sell at regular market prices, and produce a relatively small amount, which is not of uniform quality; hence employers do not fear them as competitors.

The production under trade-school conditions of salable goods, although a valuable means of training, does not give the pupil the familiarity with trade conditions which will enable her to fit easily and quickly into an actual shop or factory, and to supply this several devices have been tried. In Boston, trade shops, opened in 1907,[2] were established to "combine the necessity of earning a weekly wage with the opportunity of prolonging trade training."[3] The girl who had spent one year at the trade school was paid $4 to $7 a week in these shops, where she was taught new processes under trade conditions, and was acquainted with the items of shop expense, so that she could see her own place in the industry.[1]

---

[1] See Table 140, p. 256.

[2] Second Annual Report of the Boston Trade School for Girls, 1906, p. 14.

[3] Third Annual Report of the Boston Trade School for Girls, 1907, p. 15.

A second experiment, part-time work, was tried later. The girls were to work in the shop and in the school on alternate weeks until their work was worth $6 a week to their employers.[2] This plan failed, because girls who had begun to earn were unwilling to return to the school.

A third method has been tried in Worcester in connection with the millinery courses. The school has not as yet enough orders for work to give girls the requisite training in meeting custom demands, so they are expected to spend from three weeks to five months before graduation in shops. Seventeen girls have had this training; their wages vary from $1.50 for part time to $6 for full time.

The schools have, then, tried in various ways to fit their pupils to meet the demands their trades will make upon them. By a combination of theory with trade work they have endeavored to develop "common sense" or general intelligence. By insisting that their trade work shall produce a salable product, and by trade tests, they have tried to give skill in the handling of materials and in the processes which their pupils will be required to use in industry; and they have also tried to make them familiar with the conditions under which they will have to work later, with a view to shortening the time required for "fitting in" to the actual shop or factory.

STABILITY OF TRADE-SCHOOL GIRLS IN TRADE POSITIONS.

The real test of the success of these devices comes when the pupils go into industry, or rather, when they go into industry with the approval of the school. The conditions under which this approval is given are different in the two leading schools. In Worcester the pupils are required to graduate before the school will pronounce them fit, and for graduation they must have had 1,700 hours of trade work with required supplementary work. When this has been satisfactorily completed the school will recommend girls for positions, but believing that they should have the discipline of finding positions for themselves the school refuses to place them. In Boston the pupils are placed as soon as the school believes that they have sufficient ability to succeed. The school has a list of cooperating employers who send to it when they need young workers, and thus it is usually able to send a girl to a position as soon as she is fitted for it. In lieu of diplomas, the Boston school grants certificates to girls placed in industry after they have worked, satisfactorily to their employer, for three months.[1]

---

[1] Florence M. Marshall: Shops for trade training, Federation Bulletin, November, 1907.
[2] Trade School Bulletin, April, 1911.

Most studies of young workers emphasize their tendency to shift from one position to another especially in the first years after going to work. In this respect the trade-school pupils make a fairly good showing. Table 35 gives the number and proportion of pupils from the Boston Trade School remaining for specified periods in their first position, and for purposes of comparison similar figures are given for the 200 girls, discussed above, who had acquired their training in the trade.

Considering first the trade-school pupils, it appears that about one-half remained in their first position for six months or longer, about one-fifth remained longer than six months but less than one year, and about three-tenths for a year or more. The trade school, however, frequently moves a girl on its own initiative as better openings appear or as the placement agent learns of positions for which these young people are better equipped. The girls who found their own positions show a little more stability than those placed by the school, though the difference is small, and appears principally among those who made a very short stay in the first position, those who held it for less than a month being proportionately twice as numerous among the school-placed as among the self-placed pupils. There seems less stability among those placed by the school in the last five years than among those placed in the first period, and like the contrast between the school-placed and the self-placed this is most evident in those staying but a short time in the first position; those leaving within three months formed only 25.2 per cent of those placed in the period 1904–1909 against 32.8 per cent of those placed in the period 1909–1914. Since the school has now a much larger number of cooperating firms than in its earlier period it can use more care in its placements, and since it keeps its pupils for a longer time they should be better prepared to hold their first position; hence the increase in the proportion failing to do so is doubly curious. It is suggested, however, that the lesser stability may be due to changes in industry, particularly in the trades for which the school offers training, which militate against a long tenure of the initial position.

Turning to the second part of the table, it is evident that the girls who acquired their training in the trade excel the trade-school girls in the length of time spent in their first position. Only 28.8 per cent of the trade-trained girls left their first position in less than six months, as against 49.9 per cent of the whole group of trade-school girls. The proportion of the trade-trained girls holding their first position less than a month is almost negligible, and the proportion leaving it under three months is not quite one-eighth. It is to be remembered, however, that these trade-trained girls are "survivors," girls who have worked their way up in the trade, and that there is no means of knowing how many others, starting out at the same time they did, failed to hold their first position or any subsequent one, and drifted out of the trades altogether.

---

[1] Trade School Bulletin VII, November, 1913.

TABLE 35.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS WHO USED THEIR TRADE AND OF TRADE-TRAINED GIRLS REMAINING IN THEIR FIRST POSITIONS FOR SPECIFIED PERIODS.

BOSTON TRADE SCHOOL GIRLS.

Length of time in first position.	Number remaining specified time in first position.						
	1904-1909		1909-1914		Total.		Grand total.
	Placed by the school.	Not placed by the school.	Placed by the school.	Not placed by the school.	Placed by the school.	Not placed by the school.	
Under 1 month	19	3	54	[1] 5	73	8	81
1 and under 3 months	27	9	[2] 84	[1] 14	111	23	134
3 and under 6 months	41	9	[1] 78	[1] 23	119	32	151
6 and under 9 months	26	3	50	[3] 16	76	19	95
9 and under 12 months	16	1	[4] 31	8	47	9	56
1 year and over	54	17	123	23	177	40	217
Not known	1	1	7	1	8	2	10
Total	184	43	427	90	611	133	744
	Per cent remaining specified time in first position.[5]						
Under 1 month	10.4	7.1	12.8	5.6	12.1	6.1	11.0
1 and under 3 months	14.8	21.4	20.0	15.7	18.4	17.6	18.3
3 and under 6 months	22.4	21.4	18.6	25.8	19.7	24.4	20.6
6 and under 9 months	14.2	7.2	11.9	18.0	12.6	14.5	12.9
9 and under 12 months	8.7	2.4	7.4	9.0	7.8	6.9	7.6
1 year and over	29.5	40.5	29.3	25.8	29.4	30.5	29.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TRADE-TRAINED WORKERS.

Time in first position.	Girls remaining specified time in first position: Dressmaking and cloth power-machine operating.					
	Number.			Per cent.[5]		
	Dressmaking.	Power-machine operating.	Total.	Dressmaking.	Power-machine operating.	Total.
Under 1 month	4	1	5	4.1	1.0	2.5
1 and under 3 months	8	11	19	8.2	11.0	9.6
3 and under 6 months	17	16	33	17.3	16.0	16.7
6 and under 9 months	11	4	15	11.2	4.0	7.6
9 and under 12 months	5	11	16	5.1	11.0	8.1
1 year and over	53	57	110	54.1	57.0	55.5
Not known	2	......	2	......	......	......
Total	100	100	200	100.0	100.0	100.0

[1] Including 1 still in initial position.
[2] Including 2 still in initial position.
[3] Including 3 still in initial position.
[4] Including 4 still in initial position.
[5] Based on number of girls whose time in first position was known.

In practice, it is not necessarily a misfortune for a Boston Trade School girl to fail to hold her first position, since it may mean betterment and also because the school encourages its accredited pupils to return for further training whenever they are out of work. At such times they may take advanced courses, such as cutting and fitting, or may gain speed on power machines, and are ready to be re-placed at the earliest opportunity. The crowded condition of the school, however, causes this plan to work some hardship to new pupils who desire trade training, as old pupils are given some preference. A special workroom in which girls may increase their efficiency while out of work has been suggested as a means of meeting this difficulty.

COOPERATION BETWEEN TRADE SCHOOL AND EMPLOYERS.

Since the Boston Trade School makes a point of placing its pupils it naturally strives to cultivate such relations with employers as will forward this work. Employers have proved willing not only to take trade-school girls, but to discuss with the school the points in their training which need improvement, a proceeding which is helpful to the school in its efforts to make its training really effective. In the matter of taking girls from the school, there has been a steady growth from the beginning in the number of employers willing to cooperate. The following table shows how many employers have taken pupils, and the number of girls to whom each employer has given positions·

TABLE 38.—NUMBER OF FIRMS WITH WHICH GIRLS TRAINED IN THE BOSTON TRADE SCHOOL HAVE BEEN PLACED, AND NUMBER OF GIRLS TAKEN BY EACH.

Number of girls placed with each firm.	Number of firms taking specified number of Boston Trade School girls.				
	1904-1909	1909-1914	1904-1914	Total.	Per cent of total.
One girl	39	102	....	141	48.0
Two girls	10	37	15	62	21.1
Three girls	6	14	10	30	10.2
Four girls	2	10	5	17	5.8
Five girls	1	6	4	11	3.7
Six girls	....	2	2	4	1.4
Seven girls	....	1	4	5	1.7
Eight girls	....	2	5	7	2.4
Nine girls	....	2	1	3	1.0
Ten and under 15 girls	....	....	9	9	3.1
Fifteen girls and over[1]	....	....	5	5	1.7
Total	58	176	60	294	100.0

[1] One firm took 19 girls, another 23, another 29, and a fourth 34. The Women's Educational and Industrial Union, where the trade-school shops were conducted, took 86.

These firms have taken 849 girls either on original placements or on re-placements by the school; over two-fifths of these, 43.7 per cent, were taken by 31, or about 10 per cent, of the firms. Nearly half of the firms, 48 per cent, have taken only one girl. A list of 294 cooperating firms shows great activity on the part of the placement agents, and it is encouraging to see that 60, or one-fifth of the total number, have cooperated with the school since the beginning of its work. There has naturally been some loss of firms cooperating in the earlier period, but this has been more than compensated by the new firms who have taken up the plan. Of the whole number, the cooperation of 176 firms, or 59.8 per cent, was gained during the second period of the school's history and 20 per cent held over from the first period, so that only about one-fifth of all the firms cooperating at any period have ceased cooperating.

METHODS BY WHICH TRADE-SCHOOL PUPILS SECURE POSITIONS.

Schools, particularly vocational schools, are constantly assuming more of the responsibility of finding positions for their pupils, and trade schools have not fallen behind in this part of their work. Nevertheless, while the school's placement is the most important single method by which its pupils have secured work, the school can not as yet claim credit for quite half of the positions secured by trade-school girls. The 744 Boston Trade School girls who were found by investigation to have used their trades for wage earning for at least a week reported their methods of securing an aggregate of 2,131 positions, and the 166 girls visited in Worcester reported for 203 positions. The methods used, and the number and proportion of positions secured by each, are shown in the following table:

TABLE 37.—NUMBER AND PER CENT OF PUPILS OF THE BOSTON AND WORCESTER TRADE SCHOOLS SECURING POSITIONS BY EACH SPECIFIED MEANS.

Means of securing positions.	Girls securing positions by specified means.							
	Number.				Per cent.			
	Boston Trade School.			Worcester Trade School.	Boston Trade School.			Worcester Trade School.
	1904-1909	1909-1914	Total.		1904-1909	1909-1914	Total.	
Placed by trade school	302	625	927	57	38.1	46.7	43.5	28.1
Relatives or friends	150	244	394	48	19.0	18.2	18.5	23.6
Former employer	29	23	52	....	3.7	1.7	2.4	....
Position offered	9	4	13	3	1.1	.3	.6	1.5
Application	125	238	363	76	15.8	17.8	17.0	37.4
Advertisement	69	85	154	4	8.7	6.3	7.2	2.0
Recalled	89	94	183	13	11.2	7.0	8.6	6.4
Agency	17	18	35	2	2.1	1.3	1.6	1.0
Other means	2	8	10	....	.3	.6	.5	....
Total	792	1,339	2,131	203	100.0	100.0	100.0	100.0

As mentioned before, the trade school in Worcester does not make any point of securing places for its graduates, believing that the practice in securing their own positions is good for them. Hence, the proportion securing positions by this method differs widely in the two cities. Nevertheless, even in Worcester, well over a fourth of the positions were obtained through the school. In Boston the school is by far the most important single agency, but even so it does not account for one-half of the positions reported on. Ahead of the trade school in Worcester, and next but one to it in Boston, stands the oldest and simplest of methods, the personal application to employer after employer until one is found who needs the help the applicant can give. This method is looked upon with disfavor as wasteful and unsafe—wasteful because the applicant may spend days before happening upon the one employer who needs her, and unsafe because the applicant has no means of knowing the character of the employer whose service she enters or the conditions under which she will have to work. In Worcester, a smaller city in which all the firms are well known, this method holds a smaller element of danger than in Boston. It is also much more frequently used, the proportion of positions thus found being more than twice as great in Worcester as in Boston. The next most important means, the help of relatives and friends, is more commonly used in Worcester than in Boston, but the difference is not great. In both cities paid agencies play a very unimportant part.[1]

In Boston the second five-year period studied shows a considerable increase in the proportion of positions secured through the trade school. This is due to the attitude of the school, which is constantly assuming more of the burden of helping the pupils in their search for "jobs," and it seems likely that the proportion of places obtained by its agency will steadily increase.

SUMMARY.

Trade schools for girls in Massachusetts have grown rapidly in each of the three cities in which they have been established. They have faced a difficult problem, since their task has been to take girls ranging in age from 14 to 25 and in education from the third-grade pupil to the high-school graduate and prepare them for exacting trades. Nevertheless, they have been able to send into the trades 908 girls—36.3 per cent of the 2,500 girls who have entered the schools, or more than one-third. Because of the lack of comparable data it is impossible to say whether this is a very high or a low percentage. The High School of Practical Arts in Boston, which offers a four-year course in dressmaking, millinery, and cooking, has enrolled 1,243 pupils since it was established in 1907. Fifty-one of its graduates, or 4.1 per cent of its enrollment, have used their trade in a wage-earning capacity, either in industry or as teachers. The

---

[1] This is true for women in the sewing trades generally. See Mary Van Kleeck: Women in the bookbinding trades, p. 125; May Allinson: Dressmaking as a trade for women in Massachusetts, Bul. No. 193, United States Bureau of Labor Statistics.

New Bedford Independent Industrial School for Boys, with a four-year course, has enrolled 337 pupils since its foundation in 1909. Thirteen of its graduates and 72 boys who left the school before graduation have used their trades for wage earning, thus making 25.2 per cent of the total number enrolled who have gone into their trades. The girls' trade schools have sent a much larger proportion of their pupils into their trades than have either of these schools.

The girls' trade schools have evolved a system of individual instruction which allows rapid progress. They have not only prepared pupils to enter their trades, but have placed them in positions and assisted them in finding new positions. They have analyzed the trades which they teach, which in itself is an achievement, and have ascertained the normal sequence in which processes should be taught. They have also had to train their teachers.

The trade-school experience has, moreover, shown—

1. That a completed grammar-school education is a great help in gaining access to these skilled trades.
2. That a certain degree of maturity, 16 years at least, is essential to entering these trades at present in Massachusetts.
3. That the majority of girls require a trade-school course of at least a year in length in order to enter and remain in their trades.

The trade schools for girls have not yet succeeded in their endeavor—

1. To make a year in trade school equivalent to a year in the trade.
2. To find trades suitable for all pupils who apply for training.
3. To develop school incentives comparable to the incentive of the pay envelope in trade, leading to rapid and thorough work.

From an educational point of view the great achievement of the girls' trade schools has been the relating of school work to the actual industrial life of the community. There is a certain danger that trade schools may adopt an academic viewpoint, in which case this achievement will be lost. Trade schools must follow pedagogically sound methods of teaching, which have necessarily been evolved in connection with academic subjects. But to introduce academic subjects unrelated to trade work, or to encourage any atmosphere but that of the trade is to endanger the success of the whole enterprise. The insistent demand made by the public that schools should be related to present-day conditions can be proved to be or not to be worthy of attention by actual experiment. Trade schools for girls have already accomplished so much that they should be allowed unlimited freedom for development in their own line, unhampered by academic tradition.

CHAPTER III.—INDUSTRIAL EXPERIENCE OF BOSTON TRADE SCHOOL GIRLS.

DIFFICULTY OF DETERMINING EFFECTIVENESS OF TRADE-SCHOOL TRAINING.

Vocational schools of to-day are being subjected to a test new in the educational world; namely, the measure of their efficiency by the immediate as well as by the ultimate productive power of their pupils. Before such a test can be applied fairly to trade schools for girls a number of factors must be taken into consideration, in order to obtain a conception of what may reasonably be expected from this new type of training.

First, it must be remembered that trade training for girls is still in the experimental stage. Massachusetts, which is supposed to stand foremost in its solution of the problems involved in industrial education, maintains at present only three trade schools for girls, all of recent establishment. The Boston Trade School alone, with its 10 years' experience, provides a group of girls whose working career has been long enough to show more than immediate results. The Worcester Trade School with three and one-half years, and the Cambridge Trade School with but two years' experience, are more serviceable in their suggestion of new methods and ways of adaptation to local conditions than in the actual statistics they furnish as to the wage-earning capacity of their pupils.

Second, industrial training for girls has been a series of experiments in training for trades which are undergoing a tremendous industrial evolution. The schools train especially for the sewing trades, and in these the tendency has been toward a complete reorganization of methods of production. Consequently, the trade educators have met from the start a fundamental difficulty—that of adjusting their training to continually changing industrial needs. This difficulty is increased by the natural tendency of education to crystallize and develop along increasingly well-worn grooves, whereas the situation calls for continual changes corresponding to those taking place in the trades.

Third, the work of the trade school is hampered by the wide variation in the type of pupil who has applied for training, this variation being due in part to the fact that the trade school is new in the educational system and its purpose is little understood. Girls ranging from 14 to 25 years of age, regardless of previous education, are admitted for trial. Many girls drift in with no conception of the purpose of the school or with no real motive for coming. "Other girls were going." "Thought I would try it." "Went to trade school to get out of home lessons," were some of the reasons given by the girls. "Mary never was bright in school, so we thought we would send her to trade school," said one mother. "There ought to be more schools for feeble-minded girls like Mabel, who couldn't learn any place else," said one grandmother. Unfortunately, a study of the records of the girls who have passed through the trade schools seems to bear conclusive evidence that "those who couldn't learn any place else" did not learn in the trade school.[1]

Fourth, the majority of the girls who have gone out from the trade school are still young, and their working experience has been brief. This investigation is based on a study of 849 pupils from the Boston school, 166 from the Worcester and 98 from the Cambridge school; 41.9 per cent of the Boston pupils, 86.7 per cent of the Worcester, and the same per cent of the Cambridge pupils were under 20. Naturally this immaturity is a serious factor in determining their ability to secure and maintain a foothold in their trades, since the effect of the industrial evolution going on in the clothing trades is to increase the proportion of mature workers required. As to length of working experience, none of the pupils from the Worcester and Cambridge schools have been out more than three years. One-fourth of the girls from the Boston school have been out less than three years, and more than one-half have been out less than five years. Evidently the body of experience available is insufficient for the formation of a final opinion as to the value of trade-school training.

When attempting, therefore, to draw conclusions as to the efficacy of trade-school training from the experiences of the trade-school pupils, all these facts must be borne in mind as affecting the decision to be reached: The small number of pupils who have as yet been instructed in the school, their youth and the brevity of their working experience, the difficulty the trade school faces in trying to adapt its training to constantly changing demands, and the wide variation in type of the pupils with whom it must work.

Giving due weight to these considerations, however, a study of the industrial experience of the girls trained in the trade schools of Massachusetts seems likely to be of value, for only by studying the experiences of its pupils can the school discover what parts of its training are strong or weak and what new measures must be taken to meet the requirements of the vocations for which it trains. Such a survey may be expected to show some significant facts relating to (1) the types and proportion of pupils surviving in the trade schools and in the trades for which they are trained, and the influences which seem to determine success or failure; (2) the rate of advancement and the time required to become self-supporting in the several trades for which the trade schools train; (3) the subsequent experience, stability and industrial advancement of those entering occupations other than those for which they were trained; (4) the relative efficiency of trade-school girls compared with those who have not been trained in the trade schools.

---

[1] See Tables 12 and 21, pp. 31 and 38.

STATISTICAL BASIS OF STUDY OF INDUSTRIAL EXPERIENCE.

As already stated, the original intention was to follow up the careers of all girls from the Boston and Worcester schools who had either used their trades or taken a training of nine months or more, and all girls from the Cambridge school. But 74 of the Boston and 15 of the Cambridge girls could not be located. The group studied consists therefore of 1,113 girls, 44.5 per cent of the total number who have gone out from the three schools since their foundation. It includes 849 girls from the Boston school, 744 who used their trades, and 105 who did not; 166 from the Worcester school, of whom 94 used their trades and 72 did not; and 98 from Cambridge, of whom 26 used their trades and 72 did not. In order to compare the industrial experiences of these girls with those of girls without trade-school training, the records were obtained of 100 girls in dressmaking shops and of 100 girls operating power machines in factories who had worked their own way into the trades. In addition the industrial records of 46 girls employed in sewing trades in Worcester were obtained: these girls were all attending the Worcester Evening Trade School, and none were over 25.

Boston, it will be observed, furnishes three-fourths (76.2 per cent) of the total group of trade-school girls studied. The pupils going out from the other schools differ so widely from those of Boston in age, length of training, working experience, industrial opportunities, and the like, that they can not be merged fairly with the Boston group, whose numerical preponderance would bring the Boston experiences to the front at the cost of those of the other two. Consequently, each group of trade-school pupils will be discussed separately, the present chapter being devoted to the industrial experiences of the girls from the Boston Trade School. On the basis of the use they made of their trade training, those studied from this school were divided as follows:

TABLE 38.—NUMBER AND PER CENT OF GIRLS FROM BOSTON TRADE SCHOOL WHO HAD USED AND HAD NOT USED THEIR TRAINING, BY TRADES.

Trade followed.	Total.	Girls who had used their trade training.		Girls who had not used their trade training.	
		Number.	Per cent.	Number.	Per cent.
Dressmaking	498	423	84.9	75	15.1
Millinery	175	157	89.7	18	10.3
Power machine operating on					
Cloth	87	81	93.1	6	6.9
Straw hats	77	72	93.5	5	6.5
Cooking	6	5	83.3	1	16.7
Design	6	6	100.0		
Total	849	744	87.6	105	12.4

AGE AND LENGTH OF WORKING EXPERIENCE OF BOSTON TRADE SCHOOL GIRLS STUDIED.

The pupils from the Boston Trade School had a higher level of age, owing partly to the longer time the school has been in existence, than those from the other schools; nevertheless they were in the main decidedly young. The following table shows the age grouping, at the time of the investigation, of the 849 girls whose records were studied:

TABLE 39.—NUMBER AND PER CENT IN SPECIFIED AGE GROUPS AMONG BOSTON TRADE SCHOOL GIRLS WHO HAD USED AND WHO HAD NOT USED THEIR TRADES.

NUMBER.

Age.	Girls going out from the Boston Trade School.				
	Total.	Who had used their trades.	Who had not used their trade.		
			Total.	Working.	Not working.
16 and under 18 years[1]	132	115	17	14	3
18 and under 20 years	221	183	38	33	5
20 and under 25 years	419	371	48	37	11
25 years and over	70	69	1	1	....
Not living	7	6	1	1	....
Total	849	744	105	86	19

PER CENT OF EACH AGE.[2]

Age.	Total.	Who had used their trades.	Who had not used their trade: Total.	Working.	Not working.
16 and under 18 years	15.6	15.6	16.3	16.5	15.8
18 and under 20 years	26.3	24.8	36.5	38.8	26.3
20 and under 25 years	49.8	50.3	46.2	43.5	57.9
25 years and over	8.3	9.3	1.0	1.2	....
Total	100.0	100.0	100.0	100.0	100.0

[1] None under 16 years.

[2] Not including those not living.

It is apparent that while the whole group is young, the age level of those using their trades is somewhat higher than of those who did not. Very nearly three-fifths of those using their trades were 20 or over, against less than half of those not using them.

The length of time these girls had been out of school is shown, by trades for those who used their trades, and as a group for those who did not, in Table 40.

More than half of these students have been out of the school less than five years, and it is notable that those having been out this shorter term form a larger proportion among those who have not worked at their trade than among those who have—65.7 per cent against 53 per cent. The value of the two groups—those who have been out for five years or over and those who have been out for less than five years—for purposes of study, lies along different lines. The records of the older group show to what extent the trade-school girl has maintained herself in the trade for which she was trained, and the extent to which the survivors are able to meet present-day conditions; the records of the younger group provide a basis for a study of the difficulties and the possibilities before the young, partially trained girl who is attempting to become established as a wage earner under present industrial conditions.

TABLE 40.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS OUT OF THE SCHOOL EACH SPECIFIED LENGTH OF TIME.

NUMBER.

Years out of trade school.	Girls using their trade.						Not using their trade.	Total.
	Dressmaking.	Millinery.	Power-machine operating on—		Cooking and design.	Total.		
			Cloth.	Straw hats.				
Under 2 years........	46	20	7	14	6	93	13	106
2 and under 3 years..	48	15	18	14	3	98	10	108
3 and under 4 years..	52	26	12	14	2	106	21	127
4 and under 5 years..	59	17	10	8	....	94	25	119
5 and under 6 years..	61	14	7	6	....	88	16	104
6 and under 7 years..	53	20	5	9	....	87	3	90
7 and under 8 years..	39	18	8	2	....	67	7	74
8 years and over......	62	27	12	4	....	105	10	115
Not living............	3	....	2	1	....	6	....	6
Total..........	423	157	81	72	11	744	105	849

PER CENT.[1]

Years out of trade school.	Dressmaking.	Millinery.	Cloth.	Straw hats.	Cooking and design.	Total.	Not using their trade.	Total.
Under 2 years........	11.0	12.7	8.9	19.7	54.5	12.6	12.4	12.6
2 and under 3 years..	11.4	9.6	22.8	19.7	27.3	13.3	9.5	12.8
3 and under 4 years..	12.4	16.6	15.2	19.7	18.2	14.4	20.0	15.1
4 and under 5 years..	14.0	10.8	12.7	11.3	....	12.7	23.8	14.1
5 and under 6 years..	14.5	8.9	8.8	8.5	....	11.9	15.2	12.3
6 and under 7 years..	12.6	12.7	6.3	12.7	....	11.8	2.9	10.7
7 and under 8 years..	9.3	11.5	10.1	2.8	....	9.1	6.7	8.8
8 years and over......	14.8	17.2	15.2	5.6	....	14.2	9.5	13.6
Total..........	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Not including those not living.

Dressmaking and millinery were taught from the first, and 51.2 per cent of the dressmakers and 50.3 per cent of the milliners have been out of the trade school for five years or over. Only two-fifths (40.4 per cent) of the cloth machine operators and less than one-third (29.6 per cent) of the straw machine operators have been out of the school for as long as five years, while none of the few who have taken cooking and design have been in the industrial world as long as four years.

The present chapter, then, deals with a group of 849 girls from the Boston Trade School, predominantly young, not quite three-fifths being over 20, and of limited industrial experience, approximately 55 per cent having been out of trade school for less than five years, and only a little over one-eighth (13.6 per cent) having been out as long as eight years.

These girls fall into two groups—those who had made some use of the trade for which they were trained and those who had not. The former, by far the more important group, was at the time of the investigation distributed as follows:

TABLE 41.—NUMBER AND PER CENT EARNING AND NOT EARNING WAGES, AMONG BOSTON TRADE SCHOOL GIRLS WHO HAD MADE SOME USE OF THEIR TRADES.

Item.	Boston Trade School girls who had used their trades.	
	Number.	Per cent.
Earning wages:		
In their trade	352	47.3
In other occupations	207	27.9
Total	559	75.2
Not earning wages:		
Married	97	13.0
At home	63	8.4
At school	13	1.8
Not living	6	.8
Lost trace of	6	.8
Total	185	24.8
Grand total	744	100.0

GIRLS WHO DID NOT USE THE TRADE FOR WHICH THEY WERE TRAINED.

Before beginning the discussion of the industrial experiences of the girls who had used their trade training, it may be well to discuss briefly the 105 who had attended the trade school for nine months or more but had never used the trade for which they were trained. The following table shows their distribution at successive periods after leaving the trade school:

TABLE 42.—NUMBER AND PER CENT EARNING AND NOT EARNING WAGES WHEN OUT OF SCHOOL EACH SPECIFIED LENGTH OF TIME AMONG BOSTON TRADE SCHOOL GIRLS WHO ATTENDED THE SCHOOL 9 MONTHS OR OVER BUT HAD NOT USED THEIR TRADES.

Length of time out of trade school.	Number.								Per cent earning and not earning wages.		
	Grand total.	Earning wages.	Not earning wages.					Lost trace.	Earning.	Not earning.	Lost trace.
			Total.	Married.	At home.	At school.	Not living.				
At time of first leaving	105	61	44	2	39	3	......	......	58.1	41.9	......
At the end of—											
First year	105	59	46	2	40	4	......	......	56.2	43.8	......
Second year	92	51	40	4	31	4	1	1	55.4	43.5	1.1
Third year	82	51	30	4	24	1	1	1	62.2	36.6	1.2
Fourth year	61	34	26	3	20	2	1	1	55.8	42.6	1.6
Fifth year	36	22	14	4	9	......	1	......	61.1	38.9	......
Sixth year	20	12	8	2	5	......	1	......	60.0	40.0	......
Seventh year	17	9	8	3	4	......	1	......	52.9	47.1	......
Eighth year	9	4	5	3	1	......	1	......	44.4	55.6	......

Nearly three-fifths of these girls entered wage-earning pursuits as soon as they left the trade school, and at times a larger proportion were gainfully employed, so that their failure to make use of their trades was not due to their keeping out of industrial life altogether. Unless a girl goes directly into the trade for which she is trained, she is very unlikely to enter it later, for she has lost touch with the school which can vouch for her and has also lost her skill or speed.

TABLE 43.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS GIVING EACH SPECIFIED REASON FOR NEVER USING THEIR TRADES.

NUMBER.

Reason for never using trade.	Dress-making.	Millinery.	Power-machine operating on—		Cooking and design.	Total.
			Cloth.	Straw hats.		
Lack of adjustment:						
Not successful in school	5	2	1			8
Did not learn enough	10	2		1		13
Not long enough in school to learn	2	1		1		4
Disliked trade school			1			1
Unstable	1	1				2
Total	18	6	2	2		28
Physical incapacity:						
Not strong, nervous, weak eyes, etc	8	1	1	1		11
Color (Negro)	2					2
Total	10	1	1	1		13
Trade conditions:						
Dislike of work by the girl or her parents	12	1	1			14
Unable to get position—poor pay	2	1	1			4
Too far from home	1		1			2
"Got another job and kept it"	6	5		1		12
Total	21	7	3	1		32
Advancement (school)		1				1
Domestic reasons:						
Learned for home use	5					5
No need to work	4	2				6
Helping or needed at home	10	1		1		12
Married	2				1	3
Total	21	3		1	1	26
Unclassified	5					5
Grand total	75	18	6	5	1	105

PER CENT.[1]

Reason for never using trade.	Dress-making.	Millinery.	Cloth.	Straw hats.	Cooking and design.	Total.
Lack of adjustment	25.7	33.4	33.3	40.0		28.0
Physical incapacity	14.3	5.5	16.7	20.0		13.0
Trade conditions	30.0	38.9	50.0	20.0		32.0
Advancement (school)		5.5				1.0
Domestic reasons	30.0	16.7		20.0	100.0	26.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

[1] Not including those unclassified.

Thus, although a number of these girls who did not work at first leaving school afterward became wage earners, none of them entered the trade for which they had been trained, while those who on leaving the school took up some other work at once, either kept it or, if they changed, went into some other trade for which they had not been trained. Those who took up work for wages seem to have kept to it rather steadily, for the proportion gainfully employed, although it fluctuates in the successive years out of trade school, shows no serious decrease until the end of the seventh year, at which time the numbers are so small that little significance can be attached to the changes shown.

The reasons given by the girls themselves for their failure to use their trades are shown in Table 43.

It will be noticed that a lack of personal adjustment and physical incapacity both play important parts in keeping girls out of their trade. Over one-fourth (28 per cent) did not enter their trade because of failure or inability to get the good of their trade school training, and about one-eighth (13 per cent) because of some physical disability. The largest group ascribed their staying out to some condition connected with the trade, and the reason most frequently given under this classification was a dislike of the trade on the part either of the girl or her parents. It is rather curious to see that this dislike is a far more important reason among the dressmakers than among the girls who had studied other trades, in spite of the fact that dressmaking is a trade with which every woman has some acquaintance and the conditions of which should be familiar to both girls and parents before the training is undertaken.

This fact perhaps links itself with another. Comparing the proportions which the several trades furnish first to the whole group of 849 girls studied and then to the group who never used their trades, we have the following figures:

TABLE 44.—PER CENT IN EACH SPECIFIED TRADE OF TOTAL NUMBER OF BOSTON TRADE SCHOOL GIRLS STUDIED AND OF THOSE NOT USING THEIR TRADES.

Trade.	Per cent of number studied.	Per cent of number who did not use trade.
Dressmaking	58.7	71.4
Millinery	20.6	17.1
Power-machine operating on—		
Cloth	10.2	5.7
Straw hats	9.1	4.8
Cooking and design	1.4	1.0
Total	100.0	100.0

Dressmaking is the only one of the trades furnishing more than its proportionate share of those who never used their training. Coupling this with the number of those trained as dressmakers who failed to use their trade because they did not do well in school or did not like the trade, or because they took the first thing which they could get and let their trade go, it seems possible that dressmaking, just because it is so well known, attracts an undue proportion of the girls who are unlikely to make a success of any trade. Millinery, which is also well known among women's trades, stands next to dressmaking in the proportion it contributes to those never using their trades, while the newer trades, machine operating and cooking and designing, fall considerably below the proportion which, numerically, they might fairly furnish to this group. Allusion has already been made to the fact that the machine-operating trades are looked upon with some distrust, because they involve work in a factory, while the cooking and designing have been taken by so few that the figures concerning them are not significant. Apparently, however, few girls take the machine-operating trades as a matter of course. If they decide to take them, their purpose is sufficiently serious for them at least to enter the trades and find out how they like them upon actual trial. It will be shown hereafter that the conditions of these trades are such that many of the girls give up their trades after having entered them, but at least they test their training by actual experience.

GIRLS WHO USED THE TRADE FOR WHICH THEY WERE TRAINED.

STABILITY IN INDUSTRY.

There is a popular belief that women's wage-earning careers are limited to five years or seven years as a general thing. This theory unquestionably tends to instill in the mind of a girl the belief that her industrial career is a temporary thing, or even to develop total indifference to the future. Employers complain of the lack of a professional attitude in women in all occupations, and the fact that no large proportion of women is found in the skilled and well-paid occupations is often lightly dismissed with the supposition that this may be ascribed to their short working career—short, because ended by marriage. How far does the experience of the trade-school pupils tend to confirm this theory?

SIFTING-OUT PROCESS IN SCHOOL.

The sifting-out process begins before these girls enter industry. There is necessarily a serious sifting out of pupils in any vocational school which offers a specific kind of training requiring fairly definite characteristics and capacities. Many who enter because they "thought they would like" a given vocation find they had small conception of its requirements, and recognizing this, drop out of their own volition. This is especially true in a vocational school catering primarily to girls of from 14 to 16 years of age, who have little or no conception of what they wish to do and little inclination or capacity to persist. Only a little more than one-third (38.6 per cent)[1] of the 2,044 girls who have attended the Boston Trade School during its 10 years' existence entered and used for one week or more the trade for which they had been trained. The school sifts out those least fitted to succeed industrially—those who either lack some qualification necessary for the trade or have not the necessary application or perseverance to finish their training. Employers say that this sifting out of the ineligibles is one of the most valuable services the school renders, for it saves them the time and expense involved in trying out a large number of new workers who could not possibly succeed in the industry. Studies of the custom sewing trades usually emphasize the large number of beginners who are taken on, found unsuited for the work, and dropped within a short time. A study carried on in New York in 1914 dealing with 3,983 milliners showed that almost one-fifth (19.6 per cent) appeared on the pay roll for one week or less,[2] and a study of 600 dressmakers in Boston in 1910 showed 12 per cent appearing on the pay roll one week or less.[3] "You can tell in a few days whether a girl will make a good milliner or not," said the head designer in the millinery workroom of a large department store. "No use wasting time on her if she does not show the requisite qualities after a few days." The trade school, in numerous cases, saves the waste of even those few days or may discover latent talents which did not appear the first few days.

The girl who perseveres through the trade school and enters her trade is subjected to two influences tending to shorten her industrial career—industrial conditions and home demands. The first is a problem to be taken into account in all vocational training, while the second is peculiar to girls or women, the cases in which a man or boy is obliged to give up his trade in response to family demands being practically negligible. The first tends to make a girl drop out of her trade, the second, to drop out of wage-earning altogether. A girl who marries may utilize her training by sewing for friends and neighbors in a casual way, but she usually ceases to be a regular worker in the trade; and a girl who lives at home with her parents is frequently withdrawn from her wage-earning career for one year, two years, or permanently, to keep house in case of the illness of some other member of her family or for some other reason. Either of these influences may come into play at any time; a dull season may force a girl temporarily out of her trade, or a need for her services at home may develop, whether she has been at work four months or four years. But the effect of both is apt to be cumulative, when a group of girls is considered as a whole. If a girl is dropped from her trade temporarily it is always possible that she may go permanently into whatever she takes up as a stop-gap, while if she is required at home, the difficulty of regaining her place in the industrial world, or home conditions, may keep her from returning. So that, as time goes on, an increasing proportion drops out of the trade for which training was secured, to go either into other wage-earning occupations or into household employment at home.

---

[1] This proportion is based on the 788 girls entered on the records as having entered their trades; 44 of these could not be located in this investigation.

[2] Mary Van Kleeck: Wages in the millinery trade, p. 63.

[3] May Allinson: Dressmaking as a trade for women in Massachusetts, Bul. No. 193, United States Bureau of Labor Statistics, p. 106.

INDUSTRIAL DISTRIBUTION AT END OF SPECIFIED PERIODS OUT OF TRADE SCHOOL.

To show this double movement and its effect upon the industrial stability of trade-school girls, Table 45 has been made, giving the distribution at the end of each year's experience outside of the school of the 744 girls leaving the Boston Trade School before September, 1914, who were found by investigation to have used their trades. This table is made up by combining the reported experiences of the individual girls when out of school each specified length of time. Thus the figures for the end of the first year represent not the employment situation at the end of any calendar year, but the number of girls in the first class to go out from the school who at the end of their first year's experience were employed or not employed, together with the number of girls in each successive class who at the end of the first year they had been out were employed or not employed. Thus, although the total number out of the school differs with each year, the proportions are comparable.

TABLE 45.—NUMBER AND PER CENT EARNING AND NOT EARNING WAGES WHEN OUT OF SCHOOL EACH SPECIFIED LENGTH OF TIME AMONG BOSTON TRADE SCHOOL GIRLS WHO AT SOME TIME USED THE TRADES FOR WHICH THEY WERE TRAINED.

Length of time out of trade school.	Number.										Per cent earning and not earning wages.				
	Total.	Earning wages.			Not earning wages.					Lost trace.	Earning wages.			Not earning wages	Lost trace
		Total.	In their trade.	In other occupations	Total.	Married.	At home.	At school	Not living.		Total.	In their trade.	In other occupations.		
At first leaving	744	741	721	20	3	1	1	1	.....	......	99.6	96.9	2.7	0.4	.....
At end of –															
1st year	744	716	619	97	27	2	18	7	.....	1	96.2	83.2	13.0	3.7	0.1
2d year	640	572	446	126	64	13	43	5	3	4	89.4	69.7	19.7	10.0	.6
3d year	554	465	313	152	82	33	41	4	4	7	83.9	56.5	27.4	14.8	1.3
4th year	447	354	239	115	86	37	41	4	4	7	79.2	53.5	25.7	19.2	1.6
5th year	352	278	176	102	67	33	29	1	4	7	79.0	50.0	29.0	19.0	2.0
6th year	264	194	122	72	64	38	21	1	4	6	73.5	46.2	27.3	24.2	2.3
7th year	175	117	66	51	52	34	15	1	2	6	66.8	37.7	29.1	29.8	3.4
8th year	107	64	32	32	41	31	8	......	2	2	59.8	29.9	29.9	38.3	1.9
9th year	63	36	15	21	25	20	4	1	.....	2	76.2	33.3	42.9	20.6	3.2
10th year	30	16	4	12	14	11	3	......	.....	......	54.8	12.9	41.9	45.2	.....

Considering first the stability of girls in the industrial world, this table shows a steady but not very rapid shrinkage of the proportion engaged in wage-earning occupations. In the first four years about one-fifth have dropped out into the ranks of nonwage earners; in the next four years about one-fifth more disappear. So few have been out for more than eight years that the figures for the ninth and tenth years are probably abnormal, but such as they are, they show more than half of the group still engaged in wage-earning pursuits at the end of the tenth year.

It will be observed that these figures give little support to the idea that the wage-earning life of the average girl is only five or at most seven years long, being terminated by marriage within that period. At the end of the fifth year 79 per cent of the 352 girls who had been out so long were still wage earners, 9.4 per cent were married, 8.6 per cent were either at home or in school, and 3.1 per cent were either known to be dead, or could not be traced. Marriage, then, had withdrawn less than one-tenth of the group. At the end of the seventh year it was responsible for a larger proportion of the 175 who had been out so long. Of these, 66.8 per cent were still wage earners, nearly one-fifth (19.4 per cent) were married, 9.1 per cent were at home or in school, and 4.6 per cent had died or been lost sight of. A wage-earning career of only five or seven years, therefore, seems to be limited to a comparatively small proportion of these girls. Since those who are married and those who are at home may both return to the industrial world, it is impossible to say how short or how long the career will be, but at least it can be stated that four-fifths of the group have worked more than five, and two-thirds more than seven years.

STABILITY IN TRADE FOR WHICH TRAINED.

Turning to stability in the trade for which the girl has been trained, the situation differs somewhat. During the first three years the proportion going from their own trades to some other wage-earning occupations is considerably larger than the proportion dropping out of the industrial world into nonwage-earning occupations. By the end of the third year those unsuited to the trades they have chosen have apparently been sifted out to a considerable degree, and during the next few years the proportion leaving their own trade for another and the proportion dropping out of the industrial world altogether are more nearly approximate.

The relative stability within the trade for which they have been trained of the girls who have taken the different trade courses is a question of some interest. The following table shows the situation in this respect:

TABLE 46.—NUMBER AND PER CENT EARNING AND NOT EARNING WAGES WHEN OUT OF SCHOOL EACH SPECIFIED LENGTH OF TIME, AMONG BOSTON TRADE SCHOOL GIRLS WHO AT SOME TIME USED THE TRADES FOR WHICH THEY WERE TRAINED, BY SPECIFIED TRADES.

I. DRESSMAKING.

Length of time out of trade school.	Number.					Per cent earning and not earning wages.			
	Grand total.	Earning wages.			Not earning wages.	Earning wages.			Not earning wages.
		Total.	In their trade.	In other occupations.		Total.	In their trade.	In other occupations.	
At first leaving	423	421	415	6	2	99.5	98.1	1.4	0.5
At the end of—									
First year	423	415	380	35	8	98.1	89.8	8.3	1.9
Second year	366	335	286	49	31	91.5	78.1	13.4	8.5
Third year	329	279	218	61	50	84.8	66.3	18.5	15.2
Fourth year	277	222	169	53	55	80.1	61.0	19.1	19.9
Fifth year	217	173	127	46	44	79.7	58.5	21.2	20.3
Sixth year	156	112	85	27	44	71.8	54.5	17.3	28.2
Seventh year	102	67	46	21	35	65.7	45.2	20.5	34.3
Eighth year	62	39	22	17	23	62.9	35.5	27.4	37.1
Ninth year	40	23	11	12	17	57.5	27.5	30.0	42.5
Tenth year	20	10	4	6	10	50.0	20.0	30.0	50.0

II. MILLINERY.

Length of time out of trade school.	Number.					Per cent earning and not earning wages.			
	Grand total.	Earning wages.			Not earning wages.	Earning wages.			Not earning wages.
		Total.	In their trade.	In other occupations.		Total.	In their trade.	In other occupations.	
At first leaving	157	156	153	3	1	99.4	97.5	1.9	0.6
At the end of—									
First year	157	144	118	26	13	91.7	75.1	16.6	8.3
Second year	137	122	82	40	15	89.1	59.9	29.2	10.9
Third year	122	101	52	49	21	82.8	42.6	40.2	17.2
Fourth year	96	72	41	31	24	75.0	42.7	32.3	25.0
Fifth year	79	59	30	29	20	74.7	38.0	36.7	25.3
Sixth year	65	46	23	23	19	70.6	35.4	35.4	29.2
Seventh year	45	30	14	16	15	66.7	31.1	35.6	33.3
Eighth year	27	13	7	6	14	48.1	25.9	22.2	51.9
Ninth year	12	4	2	2	8	33.4	16.7	16.7	66.6
Tenth year	3	....	....	....	3	....	....	....	100.0

III. POWER-MACHINE OPERATING: CLOTH.

Length of time out of trade school.	Number.					Per cent earning and not earning wages.			
	Grand total.	Earning wages.			Not earning wages.	Earning wages.			Not earning wages.
		Total.	In their trade.	In other occupations.		Total.	In their trade.	In other occupations.	
At first leaving	81	81	73	8	....	100.0	90.1	9.9	....
At the end of—									
First year	81	78	53	25	3	96.3	65.4	30.9	3.7
Second year	74	63	40	23	11	85.2	54.1	31.1	14.8
Third year	56	46	22	24	10	82.2	39.4	42.8	17.8
Fourth year	44	33	15	18	11	75.0	34.1	40.9	25.0
Fifth year	34	28	10	18	6	82.3	29.4	52.9	17.7
Sixth year	27	24	9	15	3	88.9	33.3	55.6	11.1
Seventh year	21	15	5	10	6	71.4	23.8	47.6	28.6
Eighth year	13	9	2	7	4	69.2	15.4	53.8	30.8
Ninth year	11	9	2	7	2	81.8	18.2	63.6	18.2
Tenth year	7	....	....	6	1	85.7	....	85.7	14.3

IV. POWER-MACHINE OPERATING: STRAW HATS.

Length of time out of trade school.	Number.					Per cent earning and not earning wages.			
	Grand total.	Earning wages.			Not earning wages.	Earning wages.			Not earning wages.
		Total.	In their trade.	In other occupations.		Total.	In their trade.	In other occupations.	
At first leaving	72	72	70	2	....	100.0	97.2	2.8	....
At the end of—									
First year	72	68	57	11	4	94.4	79.1	15.3	5.6
Second year	58	47	33	14	11	81.0	56.9	24.1	19.0
Third year	44	36	18	18	8	91.8	40.9	40.9	18.2
Fourth year	30	27	14	13	3	90.0	46.7	43.3	10.0
Fifth year	22	18	9	9	4	91.8	40.9	40.9	18.2
Sixth year	16	12	5	7	4	75.0	31.2	43.8	25.0
Seventh year	7	5	1	4	2	71.4	14.3	57.1	28.6
Eighth year	5	3	1	2	2	60.0	20.0	40.0	40.0

For all these trades the first three years are a period of considerable shifting,[1] but the degree of stability within the dressmaking trade is much greater than in the other sewing trades for which the trade school trains. At the end of the third year out of school, two-thirds of the girls who had entered dressmaking were still in their trade, against about two-fifths in each of the other three trades. At the end of the fifth year nearly three-fifths of the dressmakers, against from less than one-third to about two-fifths in the other trades, were still in their own trade. After the fifth year the sifting out from the other trades is less rapid, and the divergence between the proportion remaining in dressmaking and in the other trades tends to decrease. The numbers in the machine-operating trades, however, by the end of the fifth year are so small that it is doubtful whether much significance can be attached to this apparent greater stability on the part of those who have survived so long in these trades.

Conditions within the different trades undoubtedly have much to do with the variations in stability of the girls trained for these trades. In the millinery trade, the short seasons constitute the greatest sifting influence. A girl who finds herself laid off because of the dull season naturally turns to some other occupation to fill in the interim, and very possibly becomes interested in this and fails to go back to her trade when the busy season begins. Up to the close of the seventh year, the proportion dropping out of the industrial world altogether is not much greater among the milliners than among the dressmakers. More than one-half (59.4 per cent) of the milliners who left their trade gave trade conditions as the cause, and "dull seasons" as the chief of these. (See Table 56, p. 94.)

In the power machine operating trades, also, trade conditions have much to do with the sifting out of the girls trained for them, although here the difficulty is one not so much met with in custom trades like millinery—the demand for ability to do independent work. A young girl who enters a millinery or dressmaking shop is usually put near an older and more experienced worker who may turn over to her the elementary work, or pin or baste a section which she gives to the young helper to finish under her immediate supervision. The girl can ask questions when in doubt, and in general has no large degree of responsibility. The trade, it is true, is going through an evolution which tends to the increasing exclusion of the young, inexperienced worker, and which is greatly decreasing these favorable opportunities for beginners in the custom dressmaking shops, but such opportunities still exist. But in a power machine operating factory the young girl is put down at a machine and is supposed to be able to stitch her dozen of sleeves, cuffs, or curtains with very little supervision or direction. Moreover, she is usually working on a piece wage, and her small output and consequent small earnings during the first few weeks are very discouraging. There are other contributory factors. The working day is usually longer, the rush and whirr of machinery is at first confusing and wearing, and the necessity of quick and accurate work, if she is to earn at all, is discouraging. These, taken in connection with the degree of responsibility and power of self-direction required of the girl, constitute serious sifting nfluences for the young worker entering these trades.

---

[1] This table shows simply the shifting out of the trade for which the girl was trained, not out of the industrial world. For this latter aspect, see Tables 45 and 47.

As a further influence in the same direction, the training for power-machine sewing is not yet so well developed as for hand sewing. The fundamental principles of hand sewing have been taught and studied in the public schools for 40 or 50 years, and for many years past colleges and training schools of domestic arts have prepared instructors to teach this particular phase of the clothing trade. Training for power-machine sewing is relatively very new in the educational system, and if the practically unanimous reports of employers may be accepted, it is far from being adequately or correctly developed. In order to equip pupils to hold their places in the industry, this great and increasingly important branch of the sewing trades must be analyzed both from an industrial and a pedagogical standpoint and must be understood as intimately as are the hand-sewing trades.

The sifting out from the trades for which the girls are trained appears more clearly perhaps in a study of classes, if all leaving during a school year may be so called, since thus the cumulative effect is avoided which comes from grouping together all the girls in spite of varying lengths of experience. Taking the actual number of girls leaving the trade school in a school year and following them as a group through their whole period out of the trade school we have the result given in Table 47.

In comparing the degree of sifting out from the girls' own trades here shown, allowance must be made for some abnormal factors. Thus the class of 1904-5 shows a phenomenally rapid decrease; by the end of the third year only about a fourth, and by the end of the fourth year only a fifth of the class remain in the trade for which they were trained. This irregular movement seems due partly to the small number concerned, partly to the fact that the girls who first came to the school had a less definitely realized purpose than the later pupils, and partly to the shortness of their course of training. Those coming later were prevailed upon to spend more time in preparation and went out more adequately equipped to hold their places. One other group shows decided irregularity as compared with the rest—the class of 1911-12. It will be observed that a smaller proportion of these girls entered their trade than was the case with any other class except the first one sent out. During the first year in the industrial world the class of 1911-12 did not show any abnormal loss; in fact, the classes of 1905–6, 1906–7, and 1910–11 all lost a larger proportion during this year; but during its second year the European war broke out, and the consequent disorganization in the clothing trades may be partly responsible for the remarkable falling off the class shows—a fall from 82.1 per cent to 57.3 per cent.

TABLE 47.—NUMBER OF GIRLS LEAVING BOSTON TRADE SCHOOL IN EACH SPECIFIED YEAR AND NUMBER AND PER CENT OF THOSE WHO WERE WAGE EARNERS AND NONWAGE EARNERS AT END OF EACH SPECIFIED YEAR OUT OF SCHOOL.

NUMBER.

Year of leaving trade school.	Total number leaving trade school.	Earning wages in their trade.										
		Leaving trade school.	At end of each year out of trade school.									
			1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.	10th year.
1904–1914.......	744	721	619	446	313	239	176	122	66	32	15	4
1904–5..........	15	14	9	8	4	3	3	4	3	4	3	3
1905–6..........	34	34	29	24	22	19	17	16	15	9	[1] 8	1
1906–7..........	44	44	37	31	26	25	22	21	19	[2] 14	4	......
1907–8..........	56	55	51	41	34	35	31	29	21	5	......	......
1908–9..........	78	75	69	60	50	45	38	33	8	......	......	......
1909–10.........	95	95	85	68	59	51	[2] 48	19	......	......	......	......
1910–11.........	92	88	76	67	51	48	17	......	......	......	......	......
1911–12.........	117	110	96	67	53	13	......	......	......	......	......	......
1912–13.........	76	73	68	53	14	......	......	......	......	......	......	......
1913–14.........	137	133	99	27	......	......	......	......	......	......	......	......
		Earning wages in other occupations.										
1904–1914.......	744	20	97	126	152	115	102	72	51	32	21	12
1904–5..........	15	......	4	6	9	9	10	9	8	6	7	7
1905–6..........	34	......	4	7	7	9	13	10	10	12	11	5
1906–7..........	44	......	7	9	13	12	13	11	11	10	3	......
1907–8..........	56	1	5	9	12	13	16	16	17	4	......	......
1908–9..........	78	3	7	11	14	15	18	[2] 19	5	......	......	......
1909–10.........	95	......	7	14	19	23	26	7	......	......	......	......
1910–11.........	92	3	11	17	27	24	6	......	......	......	......	......
1911–12.........	117	6	12	34	[2] 42	10	......	......	......	......	......	......
1912–13.........	76	3	7	15	9	......	......	......	......	......	......	......
1913–14.........	137	4	33	4	......	......	......	......	......	......	......	......
		Not earning wages.										
1904–1914.......	744	[3] 3	[3] 28	[4] 68	[5] 89	[5] 93	[5] 74	[6] 70	[7] 58	[7] 43	27	14
1904–5..........	15	1	2	1	2	3	2	2	4	5	5	5
1905–6..........	34	......	1	3	5	6	4	8	9	13	13	9
1906–7..........	44	......	......	4	5	7	9	12	14	19	9	......
1907–8..........	56	......	......	6	10	8	9	11	16	6	......	......
1908–9..........	78	......	2	7	14	18	22	25	15	......	......	......
1909–10.........	95	......	3	13	17	21	20	12	......	......	......	......
1910–11.........	92	1	5	8	14	20	8	......	......	......	......	......
1911–12.........	117	1	9	16	21	10	......	......	......	......	......	......
1912–13.........	76	......	1	8	1	......	......	......	......	......	......	......
1913–14.........	137	......	5	2	......	......	......	......	......	......	......	......
Grand total.	......	744	744	640	554	447	352	264	175	107	63	30

[1] Not including 2 whose working experience did not round out another year. Certain cases will have a working experience not quite as long and others will have a working experience a little longer than the main group, because all leaving during the school year, September to August, inclusive, are included in the class, so girls leaving in September of a particular year may show practically a year's advantage over the girl leaving in June or July.

[2] Not including 1 whose working experience did not round out another year.

[3] Including 1 of whom no trace could be found.

[4] Including 4 of whom no trace could be found.

[5] Including 7 of whom no trace could be found.

[6] Including 6 of whom no trace could be found.

[7] Including 2 of whom no trace could be found.

TABLE 47.—NUMBER OF GIRLS LEAVING BOSTON TRADE SCHOOL IN EACH SPECIFIED YEAR AND NUMBER AND PER CENT OF THOSE WHO WERE WAGE EARNERS AND NONWAGE EARNERS AT END OF EACH SPECIFIED YEAR OUT OF SCHOOL—Concld.

PER CENT.

Year of leaving trade school.	Earning wages in their trade.										
	At leaving trade school.	At end of each year out of trade school.									
		1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.	10th year.
1904-1914	96.9	83.2	59.9	42.1	32.1	23.7	16.4	8.9	4.3	2.0	0.5
1904-5	93.3	60.0	53.3	26.7	20.0	20.0	26.7	20.0	26.7	20.0	20.0
1905-6	100.0	85.3	70.6	64.7	55.9	50.0	47.1	44.1	26.5	23.5	......
1906-7	100.0	84.1	70.5	59.1	56.8	50.0	47.7	43.2	31.8	......	......
1907-8	98.2	91.0	73.2	60.7	62.5	55.4	51.8	37.5	......	......	......
1908-9	96.1	88.5	76.9	64.1	57.7	49.0	42.3	......	......	......	......
1909-10	100.0	89.5	71.6	62.1	53.7	50.5	......	......	......	......	......
1910-11	95.6	80.0	72.8	55.4	52.2	......	......	......	......	......	......
1911-12	94.0	82.1	57.3	45.3	......	......	......	......	......	......	......
1912-13	94.7	89.5	69.7	......	......	......	......	......	......	......	......
1913-14	97.0	72.3	......	......	......	......	......	......	......	......	......
	Earning wages in other occupations.										
1904-1914	2.7	13.0	16.9	20.4	15.5	13.7	9.7	6.9	4.3	2.8	1.6
1904-5	......	26.7	40.0	60.0	60.0	66.7	60.0	53.3	40.0	46.7	46.7
1905-6	......	11.8	20.6	20.6	26.5	38.2	29.4	29.4	35.3	32.4	......
1906-7	......	16.0	20.5	29.5	27.3	29.5	25.0	25.0	22.7	......	......
1907-8	1.8	8.9	16.1	21.4	23.2	28.6	28.6	30.4	......	......	......
1908-9	3.8	9.0	14.1	18.0	19.2	23.1	24.4	......	......	......	......
1909-10	......	7.4	14.7	20.0	24.2	27.4	......	......	......	......	......
1910-11	3.3	12.0	18.5	29.3	26.1	......	......	......	......	......	......
1911-12	5.1	10.3	29.1	36.0	......	......	......	......	......	......	......
1912-13	4.0	9.2	20.0	......	......	......	......	......	......	......	......
1913-14	2.9	24.1	......	......	......	......	......	......	......	......	......
	Not earning wages.										
1904-1914	0.4	3.8	9.1	12.1	12.5	10.0	9.4	8.0	5.8	3.6	1.9
1904-5	6.7	13.3	6.7	13.3	20.0	13.3	13.3	26.7	33.3	33.3	33.3
1905-6	......	2.9	8.8	14.7	17.6	11.8	23.5	26.5	38.2	38.2	......
1906-7	......	......	9.1	11.4	15.9	20.5	27.3	31.8	43.2	......	......
1907-8	......	......	10.7	18.0	14.3	16.1	19.6	28.6	......	......	......
1908-9	......	2.6	9.0	18.0	23.1	28.2	32.1	......	......	......	......
1909-10	......	3.2	13.7	17.9	22.1	21.1	......	......	......	......	......
1910-11	1.1	5.4	8.7	15.2	21.7	......	......	......	......	......	......
1911-12	.9	7.7	13.7	18.0	......	......	......	......	......	......	......
1912-13	......	1.3	10.5	......	......	......	......	......	......	......	......
1913-14	......	3.7	......	......	......	......	......	......	......	......	......
Grand total	100.0	100.0	86.0	74.5	60.1	47.2	35.2	23.5	14.4	8.5	4.0

Discarding these two classes from consideration, as abnormal, the table seems to show a tendency toward a greater sifting out from the trade in the successive classes. Apparently, the classes of the first five years, with the exception noted, show greater stability than those of the second; thus, if the proportions remaining in their trade at the end of any given year be compared, those for the first five years are, on the whole, larger than those for the second. The difference is not marked, and the classes to be compared are few, so that much stress can not be laid on this showing, but there seem indications that the tendency is increasing steadily.

This tendency agrees with what is known of the changing opportunities for young workers in the custom sewing trades, especially in the dressmaking trade, which was chosen by more than half of the 744 girls studied. It is known that in custom dressmaking opportunities for girls to enter the trade have decreased very considerably in the last five years. This suggests the importance for the trade school of making a careful study of the market and of following up the pupils sent out. Otherwise it is possible that the girl who has gone out a year or two previously may be supplanted by the young girl just sent out, who can meet the limited demand for young workers.

Corresponding with the decrease in the proportions remaining in their own trades, the table shows an increase in the number going into other trades. In other words, the tendency is not to leave the industrial world, but merely to enter some trade in which the young worker has better opportunity than in the sewing trades as they are now developing. There seems to have been an interesting conflict between increasingly better organization of trade training and decreasing trade opportunities. For instance, in the first and second years out of trade school a decreasing proportion have gone into other wage-earning occupations from the classes of 1905–6 down to 1909–10, after which the proportion increases again. In the third, fourth, and fifth years out of trade school the proportions going into other wage-earning occupations decreases from 1905–6 down to 1908–9 and then begins to increase again. The misfortune has been that as the training was developed and presumably became better organized and more nearly perfected for the custom sewing trades, the rapid growth of the manufacture of ready-made clothing has decreased the opportunities for young girls to profit by their training and neutralized the better preparatory work now being done.

AGE IN RELATION TO PERMANENCE IN TRADE.

The preceding tables have shown that there is a steady exodus from the trade trained for, beginning as soon as the girls enter the industrial world. The rate varies from year to year but the process is on the whole continuous, so that the proportion of any given group working at their own trade decreases as the time out of trade school increases. Since the increase in the period out of school means also an increase in the age of the former pupils, this movement from the trade bears a distinct relation to the age of the workers. The following table gives the distribution of the workers studied by age groups:

TABLE 48.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS WHO WERE WAGE EARNERS AND NONWAGE EARNERS AT EACH SPECIFIED AGE.

NUMBER.

Age.	Girls of specified age who were—								Grand total.
	Wage earners—			Nonwage earners—					
	In trade trained for.	In other occupations.	Total.	Married.	At home.	At school.	Lost trace.	Total.	
16 and under 18 years	77	27	104	2	3	6	....	11	115
18 and under 20 years	102	56	158	9	13	3	....	25	183
20 and under 25 years	156	102	258	62	43	3	5	113	371
25 years and over	17	22	39	24	4	1	1	30	69
Total	352	207	559	97	63	13	6	179	[1] 738

PER CENT.

Age.	In trade trained for.	In other occupations.	Total.	Married.	At home.	At school.	Lost trace.	Total.	Grand total.
16 and under 18 years	67.0	23.5	90.5	1.7	2.6	5.2	....	9.5	100.0
18 and under 20 years	55.7	30.6	86.3	4.9	7.1	1.7	....	13.7	100.0
20 and under 25 years	42.0	27.5	69.5	16.7	11.6	.8	1.4	30.5	100.0
25 years and over	24.6	31.9	56.5	34.8	5.8	1.5	1.4	43.5	100.0
Total	47.7	28.0	75.7	13.1	8.5	1.8	.8	24.3	100.0

[1] Not including 6 not living.

The proportion working at their own trade diminishes from two-thirds among those aged 16 but less than 18 to a little less than one-fourth among those aged 25 or over. While this decrease is going on, the proportion engaged in other wage-earning occupations rises from 23.5 per cent in the first group to 31.9 per cent in the last. This increase accounts for only a portion of those dropping out of their own trade, and the increase in the proportion of those not earning, which rises from 9.5 per cent in the first group to 43.5 in the last, shows that the drain from the trades for which the girls were primarily trained is due largely to domestic demands. Up to the age of 20 comparatively few girls dropped out as a consequence of marriage; a desire for further school training or a need for their services at home accounts for their leaving. After 20, the proportion marrying and dropping out increases rapidly, so that one-third of the whole group aged 25 or over has left on this account. The proportion "at home" increases steadily up to 25, after which age very few leave to stay at home, excepting, of course, those who have married and are staying in their own homes.

SHIFTING OF INDIVIDUAL TRADE-SCHOOL GIRLS.

The tables already given have shown a considerable sifting out of the trade trained for and eventually out of the wage-earning world within the group of girls who have at some time used the trade they were trained for. To show what this means to the individual girl, the experiences are given of 12 girls who were trained for dressmaking and entered their trade. And to show the full significance of these facts, they are contrasted with the experiences of six untrained girls, taken from among the girls aged 16 to 21 years who have applied at the Boston school offices for educational certificates.

TABLE 49.—OCCUPATIONS FOLLOWED FROM YEAR TO YEAR OF 12 TRADE-SCHOOL GIRLS TRAINED IN DRESSMAKING.

[These cases represent an unusual amount of drifting on the part of trade-school girls. They have been selected to illustrate the variety of occupations into which these young girls may drift. When compared with the variety of occupations into which the young untrained girls sometimes drift (see Table 50), even these extremes are remarkably stable.]

Girl No.	Occupation at the end of each year after leaving trade school.					
	On first leaving.	First year.	Second year.	Third year.	Fourth year.	Fifth year.
1	Plain sewer	Plain sewer	Business college.	Bookkeeper		
2	General sewer.	General sewer.	Bundle girl	Clothing factory.	Embroidery	
3	General sewer.	General sewer.	Nurse girl	School	Nurse girl	Trade school.
4	Skirt finisher.	Waist finisher.	Waist finisher.	Business college.	Stenographer.	Stenographer.
5	Finisher	Finisher	Shop aid	Studying music.	Studying music.	Finisher.
6	Finisher	Finisher	Skirt girl	Teaching sewing.	Head, skirts.	Teaching sewing.
7	General sewer.	General sewer.	General sewer.	Office girl	Ill	Married.
8	Plain sewer	Plain sewer	Skirt lining	Skirt lining	Plain sewer	Ill.
9	Finisher	Finisher	General sewer.	General sewer.	General sewer.	General sewer.
10	General sewer.	General sewer.	At home	At home	Artist's model.	Artist's model.
11	Sleeve finisher.	Sleeve finisher.	General sewer.	Finisher	Finisher	Shoe operator.
12	Plain sewer	Office girl	Office girl	Office girl	Office girl	Office girl.

Girl No.	Occupation at the end of each year after leaving trade school.				
	Sixth year.	Seventh year.	Eighth year.	Ninth year.	Tenth year.
1					
2					
3	Insane				
4	Stenographer				
5	Finisher	Office work			
6	Teaching sewing.	Teaching sewing.			
7	Married	Married			
8	Ill	Ill	Private dressmaker.		
9	Married	Married	General sewer		
10	At home	At home	At home	At home	
11	Plain sewer	Alterations	Married	Married	Married.
12	Office girl	Married	Married	Married	Independent dressmaker.

The trade-school girls were selected as showing an unusual amount of shifting about, yet compared with the untrained girls they seem stable. It is to be noted that none of the employments shown in Table 49 are secondary or "filling-in" occupations, such as a girl may take up during the dull season of her own trade, merely to busy herself during the interim, but with no idea of following permanently. Case No. 11, who has been out 10 years and had a more varied career than any of the others, has had only six different wage-earning occupations, and these have been closely related, only one being outside of the dressmaking trade. No. 5, with seven years out of school, has made five changes, but has spent three years in one occupation and two in another. No. 9, who has been out eight years, has had only two wage-earning occupations.

By contrast, the untrained girls shown in Table 50, whose experience covers only one year or less, have held from 7 to 16 positions, often in entirely unrelated industries. No. 1, for instance, has held 16 positions, changing from department store to grocery store, from food product factory to a dressmaking shop, thence back to a department store, and then through a series of factories, no one position appearing to have the slightest relation to the next.

TABLE 50.—DATES OF APPLICATION FOR EMPLOYMENT CERTIFICATES, AT THE BOSTON SCHOOL OFFICES, OF SIX GIRLS AND KIND OF ESTABLISHMENT ENTERED, 1913-14.

[These cases were selected as illustrations of the aimless drifting of young untrained girls. All do not drift about so much, others may drift more.]

Girl No. 1.		Girl No. 2.		Girl No. 3.	
Date of application.	Kind of establishment entered.	Date of application.	Kind of establishment entered.	Date of application.	Kind of establishment entered.
Oct. 8	Department store.	Dec. 2	Department store.	Sept. 27	Wholesale drug house.
Oct. 30	Department store.	Dec. 11	Dry goods store.	Oct. 21	Paper-box factory.
Dec. 27	Women's furnishing store.	Feb. 7	Dressmaker.	Oct. 28	Department store.
Jan. 2	Department store.	Feb. 21	Nail factory.	Jan. 20	Engraving establishment.
Jan. 30	Grocery store.	Mar. 10	Laundry.	Mar. 24	Fruit store.
Feb. 2	Shoe factory.	Mar. 16	Dressmaker.	Mar. 27	Candy factory.
Apr. 6	Food product factory.	May 26	Garter factory.	Apr. 15	Women's clothing factory.
Apr. 27	Dressmaking shop.	June 12	Opticians.	May 4	Department store.
May 5	Dressmaking shop.	June 16	Nail factory.	May 6	Embroideries.
June 3	Department store.	July 10	Department store.	June 10	Electrical supplies.
June 23	Thermometer factory.	Aug. 11	Printing establishment	Aug. 21	Shoe factory.
July 29	Slipper factory	Sept. 9	Textile factory.	Sept. 2	Embroideries.
July 30	Paper-cup factory.	Sept. 10	Candy factory.	Sept. 11	Candy factory.
Aug. 5	Bookbindery.	Sept. 16	Candy factory.		
Sept. 8	Grocery store.	Sept. 23	Brush factory.		
Sept. 21	Speedometer factory.				
Girl No. 4.		Girl No. 5.		Girl No. 6.	
Feb. 2	Shoe factory.	Nov. 8	Razor factory.	Jan. 29	Soap factory.
Feb. 26	Women's furnishing store.	Nov. 26	Brush factory.	Feb. 29	Candy factory.
Mar. 2	Department store.	Dec. 3	Paper-box factory.	Mar. 23	Shoe counter factory.
Mar. 11	Millinery shop.	Mar. 23	Garter factory.	Mar. 31	Shoe findings factory.
Mar. 14	Women's furnishing store.	Apr. 23	Children's clothing factory.	May 7	Bottling company.
Apr. 29	Department store.	May 19	Supply company.	May 21	Shoe factory.
June 8	Fancy boxes and cases.	June 10	Printing office.	Sept. 17	Candy factory.
July 16	Thermometer factory.	Aug. 5	Food packing house.		
July 29	Slipper factory.	Aug. 7	Slipper factory.		
July 30	Paper-cup factory.	Aug. 21	Glove fastener factory.		
Aug. 5	Bookbindery.	Aug. 27	Confectionery packing.		
Aug. 13	Varnish factory.				

Among the trade-school girls shown in Table 49 several gave up an occupation for the sake of securing training for another, which was then followed steadily. For instance, No. 1 and No. 4 dropped their trades to take a course in a business college, after which one went to work as a bookkeeper and the other as a stenographer. The experiences of the untrained girls do not show any parallels to this. No. 2, for example, would not find that her experience in a laundry would benefit her in the dressmaking establishment she next entered, nor would the few weeks in a department store in July increase her efficiency in the printing establishment she entered in August. The movement from one occupation to another appears to have been simply an aimless wandering about; presumably the girls had no training, could not do anything particularly well, and soon tired of the unskilled jobs, which were all they could secure, or, being inefficient, were soon laid off.

MOVEMENT OF TRADE-SCHOOL GIRLS FROM ONE TRADE TO ANOTHER, OR FROM ONE POSITION TO ANOTHER.

So far the discussion has dealt only with the stability of the trade-school girl in her own trade and in the industrial world. It is evident that this does not cover the whole question. A girl who has left her own trade may perhaps continue to make changes, and a girl remaining in her own trade may drift about from employer to employer with most unsatisfactory results. Table 51 shows the extent to which the first form of instability, the movement from one trade to another after leaving the primary trade, has prevailed among the 733 trade-school girls who entered the sewing trades:

TABLE 51.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS WHO FOLLOWED ONE TRADE ONLY AND WHO FOLLOWED TWO OR MORE TRADES AFTER ENTERING EACH SPECIFIED TRADE, BY NUMBER OF YEARS AT WORK.

NUMBER.

Years at work.	Girls who followed one trade only and two trades or more after entering the trade of—												Total in one trade only.	Total in two or more trades.	Total.
	Dressmaking.[1]			Millinery.[2]			Cloth machine operating.[3]			Straw machine operating.[4]					
	One only.	Two or more.	Total.	One only.	Two or more.	Total.	One only.	Two or more.	Total.	One only.	Two or more.	Total.			
Under 1	47	11	58	14	7	21	7	5	12	10	6	16	78	29	107
1 and under 3	87	34	121	27	24	51	16	13	29	11	7	18	141	78	219
3 and under 5	80	43	123	16	20	36	8	8	16	9	12	21	113	83	196
5 and under 7	55	21	76	11	18	29	4	9	13	7	3	10	77	51	128
7 and over	22	19	41	8	10	18	2	9	11	2	5	7	34	43	77
Not reported	3	1	4	2	......	2	......	......	......	......	......	......	5	1	6
Total	294	129	423	78	79	157	37	44	81	39	33	72	448	285	733
PER CENT.[5]															
Under 1	81.0	19.0	100.0	66.7	33.3	100.0	58.3	41.7	100.0	62.5	37.5	100.0	72.9	27.1	100.0
1 and under 3	71.9	28.1	100.0	53.0	47.0	100.0	55.2	44.8	100.0	61.1	38.9	100.0	64.4	35.6	100.0
3 and under 5	65.0	35.0	100.0	44.4	55.6	100.0	50.0	50.0	100.0	42.9	57.1	100.0	57.7	42.3	100.0
5 and under 7	72.4	27.6	100.0	37.9	62.1	100.0	30.8	69.2	100.0	70.0	30.0	100.0	60.2	39.8	100.0
7 and over	53.7	46.3	100.0	44.4	55.6	100.0	18.2	81.8	100.0	28.6	71.4	100.0	44.2	55.8	100.0
Total	69.5	30.5	100.0	49.7	50.3	100.0	45.7	54.3	100.0	54.2	45.8	100.0	61.1	38.9	100.0

[1] 13 had had three and 5 had had four primary trades.

[2] 16 had had three and 2 had had four primary trades.

[3] 4 had had two, 11 had had three, 1 had had five, and 1 had had six primary trades.

[4] 4 had had three and 2 had had four primary trades.

[5] Based on number whose time at work was not reported.

While the amount of changing from one trade to another differed with the length of time in the industrial world, it was not large. For the whole group, something over three-fifths (61.1 per cent) had had only one trade, though some of these girls had been out of the trade school for seven years and over. It has been pointed out before that those taking up dressmaking show a greater tendency to remain in their own trade than those who take up the other sewing trades. Coupled with this is a greater tendency on the part of the dressmakers to make few changes after leaving their own trade, if they do leave it. Only 30.5 per cent of the dressmakers had had two or more trades, against 50.3 per cent of the milliners, 54.3 per cent of the cloth power-machine operators and 45.8 per cent of the straw power-machine operators.

Turning to the question of instability within their own trades, the following table shows the extent to which the girls have changed employers during their experience after leaving the trade school:

TABLE 52.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS ENTERING SEWING TRADES WHO HAD WORKED FOR SPECIFIED NUMBER OF FIRMS, BY NUMBER OF YEARS AT WORK.

NUMBER.

Years at work.	Girls who entered sewing trades and worked for specified number of firms in primary trades.[1]						Total.
	One firm.	Two firms.	Three firms.	Four firms.	Five firms or more.	Not reported.	
Under 1	42	43	19	2	1		107
1 and under 2	31	50	27	10	2		120
2 and under 3	19	31	31	13	5		99
3 and under 4	14	28	24	12	22	1	101
4 and under 5	11	23	27	19	14	1	95
5 and under 6	10	17	19	16	16		78
6 and under 7	5	7	9	14	13	2	50
7 and under 8	2	6	10	6	8		32
8 and over	8	6	10	7	13	1	45
Not reported	1		2			3	6
Total	143	211	178	99	94	8	733

PER CENT.[2]

Years at work.	One firm.	Two firms.	Three firms.	Four firms.	Five firms or more.	Not reported.	Total.
Under 1	39.3	40.2	17.8	1.8	0.9		100.0
1 and under 2	25.8	41.7	22.5	8.3	1.7		100.0
2 and under 3	19.2	31.3	31.3	13.1	5.1		100.0
3 and under 4	14.0	28.0	24.0	12.0	22.0		100.0
4 and under 5	11.7	24.5	28.7	20.2	14.9		100.0
5 and under 6	12.8	21.8	24.4	20.5	20.5		100.0
6 and under 7	10.4	14.6	18.7	29.2	27.1		100.0
7 and under 8	6.2	18.8	31.2	18.8	25.0		100.0
8 and over	18.1	13.6	22.9	15.9	29.5		100.0
Total	19.7	29.1	24.5	13.7	13.0		100.0

[1] Primary trade signifies the main or principal occupation of the worker. Thus, a milliner may be a waitress at a summer hotel, but she regards this occupation as merely a means of supplementing her income from her real or "primary" occupation, millinery. If she should decide to go south to the winter hotels instead of returning to the city for the fall season in millinery, domestic service would become her primary trade.

[2] Based on number whose time at work was reported.

In considering what these changes mean, the seasonal character of the sewing trades for which these girls were trained must be borne in mind. Generally speaking, they would be laid off once, and frequently twice a year on account of the dull season. Remembering this, the extent to which they returned to their former employers is rather striking. Very nearly one-fifth had worked only for their first employer, although some had been in the industrial world for from 8 to 10 years. Only 26.7 per cent of the whole group had worked for more than three different employers in their primary trade. Naturally the proportion having had several employers was larger among those who had been out longest than among those who had recently left the school. Yet even among those who had been out for eight years or more, less than one-half (45.4 per cent) had had more than three employers, while among those who had been out less than five years only 19.2 per cent had worked for four or more firms.

SECONDARY EMPLOYMENTS.

The seasonal fluctuations of the sewing trades are pronounced, and the working seasons in millinery and the manufacture of straw hats are very short. Nevertheless, the girls do not resort to secondary occupations in any large degree. The following table shows the extent to which they have filled in the dull seasons with work at another trade or occupation.

TABLE 53.—NUMBER OF BOSTON TRADE SCHOOL GIRLS AT WORK EACH CLASSIFIED NUMBER OF YEARS WHO HAVE HELD SPECIFIED NUMBER OF SECONDARY POSITIONS TO FILL IN DULL SEASON.

Years at work.	Girls at work each classified number of years who have held specified number of secondary employments.[1]								Total.
	One position.	Two positions.	Three positions.	Four positions.	Five positions.	Six positions.	Seven positions.	Eight positions.	
Under 1	12	1	1	......	......	......	......	......	14
1 and under 2	18	1	......	......	......	1	......	......	20
2 and under 3	7	3	......	......	......	......	......	......	10
3 and under 4	17	6	3	......	......	......	......	1	27
4 and under 5	8	8	2	1	2	......	......	......	21
5 and under 6	7	1	1	2	......	1	......	......	12
6 and under 7	3	2	2	1	2	1	1	......	12
7 and under 8	1	4	1	......	......	......	......	......	6
8 and over	7	3	......	......	......	......	......	1	11
Total	80	29	10	4	4	3	1	2	133

[1] Secondary employment signifies temporary work regarded as a means of supplementing the income from the primary occupation and of filling in idle time.

It will be seen that less than one-fifth (17.9 per cent) of the 744 girls who had used their trades had filled in the dull season with secondary employments, and of these only two-fifths had had more than one secondary position. A study of the girls taking these other occupations show that the practice is more common among those engaged in straw machine operating than among those in the other three trades; the long unbroken stretch of five, six, or seven months of unemployment in the straw-stitching industry probably accounts for this difference.

Although comparatively few resorted to this means of increasing their annual earnings, yet when there was real pressure at home a girl occasionally dovetailed occupations in a remarkable fashion. The following table shows the manner in which two girls avoided unemployment, as well as the wages they earned in their primary and secondary occupations:

TABLE 54.—OCCUPATIONS FOLLOWED IN SIX SUCCESSIVE YEARS BY TWO BOSTON TRADE SCHOOL GIRLS DURING FLUCTUATIONS IN SEASONAL WORK, WITH TIME EMPLOYED, WAGES, ETC.

GIRL NO. 1.

Year.	Month beginning—	Time employed.		Time idle.		Industry.	Occupation.	Last weekly wage.	Reason for leaving.
		Mos.	*Wks.*	*Mos.*	*Wks.*				
1st...	September, 1909.	3				Millinery	Errands	$4.00	Employer married.
	December, 1909.	3				Waist manufacture.	Hand finisher.	4.00	Recalled.
	March, 1910	3				Millinery	Maker	4.00	Dull season.
	June, 1910	3				Waist manufacture.	Waist finisher.	4.50	Recalled.
2d...	September, 1910.	3				Millinery	Maker	4.50	Dull season.
	December, 1910.	3				Waist manufacture.	Hand finisher.	5.00	Recalled.
	March, 1911	3				Millinery	Maker	5.00	Dull season.
	June, 1911	3				Dress manufacture.	Waist finisher.	6.00	Recalled.
3d...	September, 1911.	3				Millinery	Maker	6.00	Dull season.
	December, 1911.	3				Dress manufacture.	Hand finisher.	6.00	Recalled.
	March, 1912	4				Millinery	Maker	7.00	Dull season.
	July, 1912	2				Dress manufacture.	Hand finisher.	7.00	Recalled.
4th...	September, 1912.	3				Millinery	Maker	7.50	Dull season.
	December, 1912.	3				Dress manufacture.	Hand finisher.	7.00	Recalled.
	March, 1913	4				Millinery	Maker	7.50	Dull season.
	July, 1913	2				Dress manufacture.	Hand finisher.	6.00	Recalled.
5th...	September, 1913.	4				Millinery	Maker	8.00	Dull season.
	December, 1913.	3				Dress manufacture.	Hand finisher.	6.00	Recalled.
	March, 1914	4				Millinery	Maker	8.00	Dull season.
	July, 1914	2				Straw hat manufacture.	Hand finisher.	6.00	Return to millinery.
6th...	September, 1914.					Millinery	Maker	9.00	

GIRL NO. 2.

Year.	Month beginning—	Time employed.		Time idle.		Industry.	Occupation.	Last weekly wage.	Reason for leaving.
		Mos.	*Wks.*	*Mos.*	*Wks.*				
1st...	September, 1909.	8	2	1	2	Dressmaking	Sleeve finisher.	$6.00	Dull season.
	July, 1910	2				Settlement house.	Interpreter	3.50	"To go back to work."
2d...	September, 1910.	9		1		Dressmaking	Sleeve finisher.	7.00	Dull season.
	July, 1911	2				Private home.	Housework	3.00	"To go back to work."
3d...	September, 1911.	8	2	1		Dressmaking	Sleeve finisher.	8.00	Dull season.
	July, 1912	1	2	1		Underwear manufacture.	Machine operating.	6.00	"To go back to work."
4th...	September, 1912.	9		1		Dressmaking	Charge of sleeves.	9.50	Dull season.
	July, 1913	1	2		2	do.	General sewing.	9.50	End of season.
5th...	September, 1913.	9		1		do.	Charge of sleeves.	12.00	Dull season.
	July, 1914	2				Private home.	Child's nurse.	4.00	"To go back to work."
6th...	September, 1914.					Dressmaking	Charge of sleeves.	12.00	

Girl No. 1 was an Italian girl, aged 20, who, with her two sisters, was supporting her mother and putting a younger sister through high school. The father was dead. She was a grammar school graduate who had attended the Boston Trade School for 15 months and had entered the millinery trade at the age of 15. For five years she maintained, she had never lost any time, dovetailing her millinery positions with work in women's ready-made clothing factories, in which she had practically as permanent a position as in her original trade. Girl No. 2, also an Italian girl of 20, was the main support of her family, her father being a teamster who was out of work all winter, and her brother an invalid. She alternated her work in her own trade, dressmaking, with housework, care of children, sewing for other dressmakers, and work in factories, but in spite of this versatility usually lost a month every summer.

Another trade-school girl, not included in the table, was a straw-machine operator, whose family were in fairly comfortable circumstances. She found that the long dull season of the straw-stitching trade which included the summer months set her free for work in the summer hotels during their busy season, and she went every year to the mountains for this purpose. Here she was obliged to work for $3.50 per week, "with board and tips," while in her own trade, making straw hats, she could average $20 a week and earn as high as $35 a week in the full season.

During the year preceding the investigation 352 of the trade-school girls studied were working at their primary trade, and of these 94 resorted at some time during the year to secondary employments. Table 51 shows in what industrial group the latter found employment and at what wages.

TABLE 55.—NUMBER OF BOSTON TRADE SCHOOL GIRLS WORKING IN SECONDARY EMPLOYMENTS DURING ONE YEAR WHO EARNED EACH CLASSIFIED WEEKLY AMOUNT AND PER CENT IN EACH KIND OF EMPLOYMENT.

Kind of secondary employment.	Girls employed during dull season in secondary employments who earned—					Total.	
	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not estimated.[1]	Number.	Per cent.
In primary trade		2		1	31	34	36.2
Manufactures	13	4	2	1		20	21.3
Domestic and personal service	5	1	9	3	1	19	20.2
Trade	2	7	5			14	14.9
Clerical occupations	3	2		1		6	6.4
Professional service	1					1	1.0
Total	24	16	16	6	32	94	100.0

[1] Independent dressmakers and milliners who could not estimate their earnings.

Many of the girls have opportunity to make dresses for friends and neighbors in their idle time, but since the work is sporadic and the price different for every dress and every customer the majority found it impossible to estimate the amount earned in this way.

The largest single group found employment within their own trade, most of them working independently and having very little idea of what their earnings had been. Manufactures and personal and domestic service were taken up by nearly equal numbers, about one-fifth of the group going into each. The earnings, it will be seen, are decidedly low. Of the 62 who could report definitely what they had made, over three-fifths (64.5 per cent) had earned less than $8 by their secondary activities. This would seem to indicate a short period of employment, as well as low wages. The data at hand indicate that the earnings in the secondary occupation are seldom equal to those in the original occupation. Girl No. 1 (Table 54) sometimes got her successive increases in wages first in her primary, sometimes in her secondary trade until she got up to $7 a week, after which she never got as high wages in her secondary as in her primary trade. Girl No. 2 found her primary trade the more profitable, sometimes getting three times as much in this as in the work she took up during its dull seasons. The relatively low wage earned by the straw-hat stitcher in the hotel work she took up during the summers has already been mentioned.

The small earnings secured by the interim work may be one reason why so few resort to secondary occupations. Other reasons of course come into play. Some do not wish or need to work 12 months in the year, some are unwilling to leave home, and some will not or can not take the kind of work available.[1] Others can not get positions. Some girls have tramped the streets for weeks, have applied at all kinds of establishments, in all kinds of industries, and yet have been unable to find work. When they do secure a position, they naturally hesitate to undertake the nerve-racking experience again, so that many who get another job "just keep it," even when the busy season in their own trade comes around again. In other cases the parents, unwilling to allow their young daughters to be subjected to this experience every year, send them to commercial schools for a new kind of training, to hospitals to train for nurses, or advocate their entering stores, telephone offices, etc.

REASONS FOR LEAVING PRIMARY TRADE.

Comment has already been made on the fact that conditions within the trade have a good deal to do with the stability within it of the girls going into it from the trade school. This fact is emphaized by the reasons given by the girls who have left their trades to account for their action. The following table gives these reasons, grouped according to the trade left:

---

[1] See May Allinson: Dressmaking as a trade for women in Massachusetts, Bul. No. 193, United States Bureau of Labor Statistics, p. 88.

A very few of the men workers in the cloak, suit, and skirt industry filled in with secondary occupations. See wages and regularity of employment in the cloak, suit, and skirt industry, Bul. No. 147, United States Bureau of Labor Statistics, p. 135.

TABLE 56.—NUMBER AND PER CENT OF GIRLS GIVING SPECIFIED REASON FOR LEAVING THEIR TRADE.

Reason for leaving the trade.	Number.						Per cent.[1]					
	Dressmaking.	Millinery.	Power-machine operating on—		Cooking and design.	Total.	Dressmaking.	Millinery.	Power-machine operating on—		Cooking and design.	Total.
			Cloth.	Straw hats.					Cloth.	Straw hats.		
Lack of personal adjustment:												
Not successful in work:	4	3	6	1	......	14	2.0	3.0	13.6	2.5	......	3.6
Not long enough in trade school to learn	2	......	......	1	......	3	1.0	......	......	2.5	......	.8
Wanted something else	6	......	1	......	......	7	2.9	......	2.3	......	......	1.8
Total	12	3	7	2	......	24	5.9	3.0	15.9	5.0	......	6.2
Physical incapacity:												
Illness, not strong, weak eyes, etc	21	6	6	3	......	36	10.4	5.9	13.6	7.5	......	9.2
Color (Negro)	......	......	......	1	......	1	......	......	......	2.5	......	.3
Total	21	6	6	4	......	37	10.4	5.9	13.6	10.0	......	9.5
Trade conditions:												
Dislike of work, too hard, long hours	21	2	8	5	......	36	10.4	2.0	18.2	12.5	......	9.2
Not recalled, poor position or pay	10	6	7	1	......	24	5.0	5.9	15.9	2.5	......	6.2
Dull seasons	23	39	1	13	......	76	11.4	38.6	2.3	32.5	......	19.5
Too far from home	1	1	1	1	......	4	.5	1.0	2.3	2.5	......	1.0
"Got another job and just kept it"	13	12	5	2	......	32	6.4	11.9	11.3	5.0	......	8.2
Total	68	60	22	22	......	172	33.7	59.4	50.0	55.0	......	44.1
Advancement:												
For further schooling	6	4	1	1	1	13	2.9	4.0	2.3	2.5	33.3	3.3
For more professional work	14	7	1	1	1	24	7.0	6.9	2.3	2.5	33.4	6.2
Total	20	11	2	2	2	37	9.9	10.9	4.6	5.0	66.7	9.5
Domestic reasons:												
Wished to be at home	7	4	......	1	......	12	3.4	4.0	......	2.5	......	3.1
Helping or needed at home	21	1	4	2	......	28	10.4	1.0	9.1	5.0	......	7.2
Married	46	13	3	5	1	68	22.8	12.8	6.8	12.5	33.3	17.4
Total	74	18	7	8	1	108	36.6	17.8	15.9	20.0	33.3	27.7
Died or moved and lost trade	7	3	......	2	......	12	3.5	3.0	......	5.0	......	3.0
Unclassified	1	......	......	1	......	2	......	......	......	......	......	......
Grand total	203	101	44	41	3	392	100.0	100.0	100.0	100.0	100.0	100.0

[1] Not including those unclassified.

Taking the group as a whole, more left on account of dull seasons than for any other single reason. With these might be included those who "got another job and just kept it," since so often their reason for getting the other job was that they had been laid off owing to the slack season in their own trade. If these are included, over one-fourth left on account of the seasonal character of their trade, a condition which they were powerless to remedy, and which is quite apart from any tendency to instability in the girls themselves. The next largest group, a little over one-sixth, left on account of marriage; about one-tenth left on account of physical incapacity and another tenth because they wished to be at home or were needed there. Almost the same proportion left to secure more schooling or to take more professional work. Dislike of the work or failure to succeed in it account for about one-sixth.

The importance of these several reasons varies from trade to trade. Among the dressmakers, who constituted by far the largest group, marriage was the principal cause for leaving, over one-fifth leaving on this account. Dull seasons, even including in this those who left because they wished to keep another job they had secured, accounts for only a little over one-sixth, and no other single cause for as much as one-eighth. In millinery the dull season accounts for more departures than in any other of these trades, constituting by far the most important single cause. One-eighth left on account of marriage and one-tenth to advance themselves. In cloth machine operating the dull season counts for little, but a lack of adjustment between the girl and the work is a serious cause of displacement. Of the 44 girls who dropped this trade, 15.9 per cent either failed in it or wanted something else, 18.2 per cent disliked the work or some of its accompaniments, and 13.6 per cent were physically unfitted for it. Sixteen per cent more left either because they were not recalled, which would seem to indicate that their work was not satisfactory, or because they had poor positions or poor pay. Almost two-thirds, therefore, of those who left the trade, and nearly two-fifths of those who entered it, were unfitted either from a physical or an industrial standpoint for the work which they had undertaken. These power-machine operating trades offer good opportunities for the more mature worker, but the young girls find them difficult, both because of the physical strain involved, and because they are left to a large extent to their own resources in carrying on the work. In the straw machine-operating trades, the dull season again becomes the most important of all reasons for leaving. Dislike of the work, physical incapacity and the like do not seem to have much more importance as reasons for leaving than in dressmaking.

SUMMARY.

It appears that two influences, industrial conditions and domestic demands, are important in withdrawing girls from their trades, the first, contrary to popular belief, weighing most heavily. The greatest sifting out from the trade comes within the first three years for all trades, but varies in degree in the different trades. Almost one-half of the milliners and machine operators had sifted out of their trade by the end of the second year. In the millinery trades, short seasons are the predominating influence in driving girls out. In the power-machine operating trades, the sifting out is largely due to the inability of the young girl to meet the demands for independent production with the requisite speed. There are some indications that this sifting out from the trades, instead of decreasing, as might be expected with the better organization of the trade-school training, has increased during the last five years; this situation is probably due to the industrial evolution going on in the sewing trades. In general, however, the trade-school girl has shown remarkable stability in comparison with the untrained worker, three-fifths having worked only at one trade, and only about one-fourth having worked for more than three employers. In spite of the seasonal fluctuations of the trades they have entered, comparatively few resort to secondary occupations, and they only occasionally. The indications of increasing instability discovered in the experience of the girls going out from the school during the last five years, however, raise the question whether this permanence in trade and in position will continue in the future.

CHAPTER IV.—WAGES OF BOSTON TRADE SCHOOL GIRLS.

INTRODUCTION.

The wages of the pupils trained in a vocational school are of particular interest for several reasons. First, it is desirable to know whether the time spent in training in a trade school is as profitable or more profitable than a similar length of time spent in the industry in which training is given. There are still well-known educators who are dubious as to the advantages of trade-school training.[1] Second, vocational education is expensive and it is desirable to know whether the pupil can secure commensurate advantages in the trade. Third, it is advantageous to know, for each of the several trades, how long it takes a girl trained in the trade school to command an adequate wage, so that girls who must earn quickly shall not be directed into a trade involving long apprenticeship. Fourth, an appreciation and understanding of the many influences which determine ability to advance or even to persist in the trade is essential for efficient vocational guidance and direction.

A most important point to be kept in mind in this study of wages in the sewing trades is that the wage reported here is the nominal wage or weekly rate which is (1) reduced by absence or holidays and (2) depends wholly on the number of weeks actually worked. A study of the sewing trades in 1910–11 showed that the nominal weekly wage was reduced 10 per cent in custom dressmaking and 14 per cent in factory dressmaking by short absences alone, such as occasional days out for illness or holidays.[2] Almost two-thirds of 533 trade-school girls in the trade for whom data on this point were obtained worked less than 10 months in their trade in a full year.[3] In the custom trades, which pay a weekly rate, the dull season means total unemployment. In the factory trades, which pay a piece rate, the girls may continue to do what work comes in, but their weekly earnings will be much smaller, as they are paid only for the actual work turned out.

The wages vary in significance in the several trades because of the difference in length of the working season and in methods of wage payment; also the number of girls in the several trades is very unequal, which again affects the significance of the wages reported. Accordingly, the wages for the different trades will in many cases be presented separately. The workers in the millinery trades, whether custom or wholesale millinery or the manufacture of straw hats, have very short seasons. Moreover, those working in the custom trades, dressmaking and millinery, are usually paid weekly rates, while those in the power-operating industries are usually pieceworkers. The dressmaking trade has been most emphasized in the trade school, and has received 56.9 per cent of the 774 girls studied who have utilized their training.

---

[1] Anna C. Hedges: Wage worth of school training (1915), p. 9.

[2] May Allinson: Dressmaking as a trade for women in Massachusetts. Bul. No. 193, United States Bureau of Labor Statistics.

[3] See Table 80, p. 143.

The attempt to secure a complete list of all positions held and of the wage received, both for all positions and, in the case of a permanent position, for each year, has been on the whole more successful than was anticipated, because the majority of the girls have not had a long working experience nor held a large number of positions. The heading "Not reported" or "Unclassified," however, may hide the story of a long series of unsuccessful efforts to get the truth. For instance, one girl who entered a dressmaking shop on leaving school soon went into a bookbindery, where she has been working 10 years on a piece wage. Obviously, she could not remember nor estimate her wages for the past 10 years. The investigator went to her employer, explained the purpose and importance of securing her wage for successive years, and after some persuasion he agreed to try to secure from the pay rolls the girl's weekly wage for each successive year. On the appointed day the investigator hopefully returned. The bookkeeper presented a neat tabulation of the girl's total earnings for each of the last three years, but said the books for the preceding four years had been burned. The first seven years' wages for this girl were thus returned "Not reported." The difficulty was not always with those receiving wages. The girls who did independent dressmaking were sometimes unable to estimate their weekly earnings, and where they were unwilling to venture the investigator feared to tread, so their wages for these years were left unclassified. In general, however, the girls, sometimes with the aid of their mother, father, or young sister, were able to remember their wages and positions with surprising clearness, for they have drifted about very little. A previous investigation of the larger portion of the older workers of this same group made in 1910 showed a comforting correspondence in the wages for the earlier years of their wage-earning career, and served as a check on these later returns.

AVERAGE WEEKLY WAGES IN SUCCESSIVE YEARS.

For a preliminary glimpse into the possibilities of wage advancement, the average wage earned in each successive year out of the trade school may be suggestive. As many girls drift into other occupations, the wages earned in the trades for which they were trained and in other occupations are presented separately, in order to show financial opportunities in those trades which the trade schools have adopted.

GIRLS REMAINING IN TRADE FOR WHICH TRAINED AND THOSE LEAVING IT FOR OTHER OCCUPATIONS.

The following table gives, by trades, the average wages for the girls who remained in the trades for which they had been trained, and also the average wages of those who left their trades, without distinction as to the occupation entered:

TABLE 57.—NUMBER AND AVERAGE WEEKLY WAGES, WHEN OUT OF SCHOOL EACH SPECIFIED LENGTH OF TIME, OF BOSTON TRADE SCHOOL GIRLS TRAINED FOR AND EMPLOYED IN SPECIFIED TRADES AND OF GIRLS TRAINED FOR BUT EMPLOYED IN OTHER THAN SPECIFIED TRADES.

[Table includes only those for whom wages were reported.]

I. GIRLS TRAINED FOR AND EMPLOYED IN SPECIFIED TRADES.

Length of time out of trade school.	Dressmaking.		Millinery.		Power-machine operating on—				Total.	
					Cloth.		Straw hats.			
	Number.	Average weekly wage.	Number.	Average weekly wage.	Number.	Average weekly wage.	Number.	Average weekly wage.	Number.	Average weekly wage.
At first leaving	414	$5.44	151	$5.15	70	$5.14	64	$8.23	699	$5.60
At the end of—										
1st year	375	6.15	117	6.11	51	6.44	56	9.59	599	6.48
2d year	279	7.07	80	7.24	39	7.12	33	12.47	431	7.51
3d year	213	7.94	50	8.63	22	8.27	18	14.56	303	8.47
4th year	162	8.75	39	9.72	15	8.23	13	14.96	229	9.23
5th year	123	9.35	30	10.62	9	9.06	9	16.94	171	9.95
6th year	83	10.63	23	11.54	9	9.96	5	17.20	120	11.03
7th year	44	11.24	14	11.44	5	10.30	1	20.00	64	11.34
8th year	21	11.88	7	11.64	2	11.50	1	20.00	31	12.06
9th year	11	11.95	2	10.50	2	11.50	....	....	15	11.70
10th year	3	10.17	....	....	....	....	....	....	3	10.17
II. GIRLS TRAINED FOR BUT EMPLOYED IN OTHER THAN SPECIFIED TRADES.										
At first leaving	6	$4.42	3	$5.50	8	$7.38	2	$2.75	19	$5.61
At the end of—										
1st year	32	6.94	26	7.21	23	6.85	11	6.59	92	6.95
2d year	46	6.84	40	7.39	22	6.68	14	7.14	122	7.02
3d year	58	8.03	48	7.77	23	7.33	15	7.70	144	7.79
4th year	49	8.34	31	8.92	17	7.80	11	8.77	108	8.45
5th year	41	9.19	29	9.84	16	7.88	8	9.00	94	9.15
6th year	23	10.65	22	9.27	13	7.96	7	11.07	65	9.70
7th year	18	12.39	15	10.03	10	8.40	4	11.75	47	10.73
8th year	14	12.50	6	11.67	7	8.36	2	11.00	29	11.23
9th year	11	13.00	2	10.00	7	8.64	....	....	20	11.18
10th year	5	14.90	....	....	6	7.83	....	....	11	11.04

For the 699 whose initial wage was reported, the average received at beginning was $5.60. In considering the adequacy of this, the age of the young workers must be taken into account. Of the total group who used their trade, 25.7 per cent were under 16, and 51.5 per cent 16 but under 18 on leaving the trade school.[1] Since entrance into the trade usually follows promptly on leaving the school, these proportions probably apply in the main to the group under consideration. Nine-tenths (90.8 per cent) of the whole group entered the dressmaking, millinery, or cloth machine-operating trades, the average initial wage for the three being $5.24. The straw machine operators began at a much higher average, $8.23; their busy season, however, is short.

---

[1] See Table 9, p. 28.

The girls who entered other than their own trades show a much greater range of average initial wages, ranging from $2.75 to $7.38, but the numbers concerned are so small that there is little significance in this fact. For the whole group the initial wage—$5.61—is almost identical with that for those who went into their own trades. At the close of the first year out of the trade school the girls in other than their own trade have a slight advantage over those who remained in their own trade, their average wage being $6.95 as against $6.48, the average for the larger group. After that, however, the average wage for the girls in their own trade is higher than for those in other occupations, the difference being especially marked from the sixth year onward.

GIRLS WHO NEVER USED TRADE FOR WHICH TRAINED.

A similar difference, except that the divergence is greater, appears if the girls who at some time used their trade be compared with those who had spent nine months or more at the trade school and afterwards became wage earners, but who never used the trade they had been trained for. The following table shows the average wages for these two groups at the end of each year out of trade school:

TABLE 58.—NUMBER AND AVERAGE WEEKLY WAGES, WHEN OUT OF TRADE SCHOOL EACH SPECIFIED LENGTH OF TIME, OF GIRLS TRAINED FOR SEWING TRADES IN BOSTON TRADE SCHOOL WHO ENTERED THEIR TRADE AND OF THOSE WHO DID NOT USE THEIR TRADE.

[This table does not include 11 girls trained in cooking and design and using their trade or girls not reporting their wage at each specified period.]

Length of time out of trade school.	Sewing-trades girls—			
	Who entered their trade.		Who attended trade school 9 months or more but did not use their trade.	
	Number.	Average weekly wage.	Number.	Average weekly wage.
At first leaving	718	$5.60	59	$5.74
At the end of—				
1st year	691	6.55	58	6.19
2d year	553	7.41	49	6.42
3d year	447	8.25	49	7.52
4th year	337	8.99	33	7.68
5th year	265	9.67	22	8.18
6th year	185	10.56	12	8.50
7th year	111	11.09	9	8.06
8th year	60	11.66	4	7.00
9th year	35	11.31	....	....
10th year	14	10.90	....	....

Those who did not use their trade began wage earning at a slightly higher average wage than those who did, but by the end of the first year they had lost the advantage, and from that time on those using their trade show the higher average, the difference becoming considerable as the number of years out of trade school increases.

TIME REQUIRED BY DIFFERENT GROUPS TO REACH $8 A WEEK.

One of the purposes of the study of wages is to discover how soon after leaving trade school a girl may expect to earn a living wage. If $8 be accepted as a minimum living wage, then in general the trade-school girls who remain in their trades have reached economic independence, as expressed in an average wage of $8, by the end of the third year; those who leave their own trades reach this point by the end of the fourth year, and those who never use their own trades by the end of the fifth year. There is considerable difference in this respect among those following different trades. The straw machine operators begin at an average wage of over $8, and by the end of the third year are averaging $14.56; the milliners and cloth machine operators have reached and passed the $8 mark by the end of the third year, and the dressmakers reach it somewhere between the end of the third and the fourth years out. The girls trained for the sewing trades who have left them show a curious difference in their rate of advancement in the trades they take up. Those trained for dressmakers who go into other trades average $8 a week sooner than those who remain in their trade; those who go out from cloth machine operating take seven years instead of three to reach this average, while the milliners and the straw machine operators take four. The number leaving their own trades for others is small, and it is impossible to say definitely what is the significance of this difference. The preceding chapter, however, has shown that many of those who leave their trade do so because they are unfitted, either physically, mentally, or by lack of suitable training, to succeed there, and it is entirely likely that this same handicap accounts for their lack of rapid progress in other trades. The girls who have never used their own trades do not reach the average of $8 a week until the end of the fifth year out of trade school. Summing up the situation in this respect, it appears that the girls who remain in the trade for which they were trained first reach this minimum of economic independence, then the girls who have used their own trades but have left them for others, and last the girls who never have used their own trade.

RATE OF ADVANCE IN DIFFERENT GROUPS.

The rate of increase of wages in the different groups is shown by the Table 59. The table shows the rate of advance over the initial wage when the girls were out of school each specified number of years and the rate of advance of wages at the end of each year out of school over wages received at the end of the preceding year.

TABLE 59.—PER CENT OF INCREASE, OVER INITIAL WAGES AND OVER WAGES IN EACH PRECEDING PERIOD, IN AVERAGE WEEKLY WAGES PAID BOSTON TRADE SCHOOL GIRLS WHEN OUT OF SCHOOL EACH SPECIFIED NUMBER OF YEARS.

Years out of trade school.	Per cent of increase over initial wage.							
	Girls using their trade at specified period.					Girls working in other occupations at specified period.	All girls using their trade at some time.	Girls never using their trade.
	Dress-making.	Millinery.	Power-machine operating on—		All girls using their trade.			
			Cloth.	Straw hats.				
At the end of—								
1st year	13.1	18.4	25.3	16.5	15.7	23.9	17.0	8.0
2d year	30.0	40.3	38.5	51.5	32.3	25.1	32.3	11.8
3d year	46.0	87.2	60.9	76.9	51.3	38.9	47.3	31.0
4th year	60.8	88.3	60.1	81.8	64.8	50.6	60.5	33.8
5th year	71.9	105.8	76.3	105.8	77.7	63.1	72.6	42.5
6th year	95.4	123.6	93.8	109.0	97.0	73.0	88.6	48.1
7th year	106.6	121.7	100.4	....	102.5	91.3	98.0	40.4
	Per cent of increase in wages over those in preceding period.							
At the end of—								
1st year	13.1	18.4	25.3	16.5	15.7	23.9	17.0	8.0
2d year	15.0	18.5	10.6	30.0	15.9	1.0	13.1	3.7
3d year	12.3	19.2	10.2	16.8	12.8	11.0	11.3	17.1
4th year	10.2	12.6	[1]5.0	2.7	9.0	8.5	9.0	2.1
5th year	6.9	9.3	10.1	13.2	7.8	8.3	7.6	6.5
6th year	13.7	8.7	9.9	.9	10.9	6.0	9.2	3.9
7th year	5.7	[1].8	3.4	....	2.8	10.6	5.0	[1]5.2

[1] Decrease.

It will be seen that the rate of increase is, on the whole, continuous; that it is at once greater and more regular among those using their own trade than among those who have left it for others, and that, as between the trades, millinery shows the greatest percentage of increase over the initial wage.

TABLE 60.—AVERAGE WAGES OF BOSTON TRADE SCHOOL GIRLS WHEN OUT OF TRADE SCHOOL EACH SPECIFIED LENGTH OF TIME AND RANGE OF WAGES PAID MIDDLE 50 PER CENT.

Length of time out of trade school.	Average wages.[1]	Range of wages paid middle 50 per cent.[2]
At first leaving	$5.60	$4 but less than $7.
At the end of—		$5 but less than $7.
First year	6.48	$6 but less than $8.
Second year	7.51	$7 but less than $10.
Third year	8.47	$8 but less than $10.
Fourth year	9.23	$9 but less than $11.
Fifth year	9.95	

[1] See Table 57, p. 99.

[2] This column was derived from Table 63, p. 107. The expression "middle 50 per cent" includes those coming within the second and third quartiles and represents that half of the workers clustering about the median and the arithmetic average.

RELATION OF WAGES OF INDIVIDUAL WORKERS TO AVERAGE WAGE.

The wages of the individual workers naturally diverge from the average wage to an increasing extent with advancing years as individual capacity has an opportunity to assert itself. Up to the sixth year the wages of the middle 50 per cent, as shown by Table 60, cluster very closely around the average wage.

From the sixth year the range widens with a rather irregular tendency to group more heavily on the lower side of the average wage. The wages of those working in occupations other than their own trade congregate less closely about the average, especially at the beginning and after the fifth year; at the beginning, because the wages represent a wide variety of occupations, and after the fifth year, because in addition to the variety of occupation some of the more mature workers have developed individual capacity and ability to take advantage of opportunities which may arise, while others remain where they started.

AVERAGE WAGES OF TRADE-TRAINED WORKERS.

The question naturally arises as to how this wage advancement compares with that of girls who have not received trade-school training. To secure a basis of comparison a study was made of 100 girls who had worked at custom dressmaking and 100 from the cloth power-sewing trades, who were of about the same age and length of working experience as the trade-school girls. Five were not in wage-earning occupations at the time of the investigation. Some had begun work in a foreign country, and their wages for those years were so incomparable with those of the trade-school girls that they were not included in the wage tables.

Before considering the question of wages, notice must be taken of one important difference in the industrial history of the trade-school girls and of these trade-trained girls. When the trade-school girl has received her training, she is placed directly in her trade, from which in time many drift out into other occupations. Many of the trade-trained girls, on the other hand, have begun in other occupations and drifted into the sewing trades, so the order of trade acquirement is just reversed. The variety of occupations through which the trade-trained girls have passed is shown for the 100 in factory sewing trades in Table 61.

Not far from one-half—42 per cent—of these girls began work in other occupations. About one-half of those who began in the manufacturing branch of the trade were first employed on hand processes, such as sewing on buttons, folding, cleaning, inspecting, marking, boxing, and keeping stock, preliminary stages which the young worker must often pass through before she has an opportunity to work on the machines. A few had sewed in custom shops before entering the factory and have been included with those in the trade because this experience provided the preliminary experience in handling cloth and materials which seems to be essential to the machine operator. From 42.9 per cent engaged on hand processes in the factory at the end of the first year the proportion dropped to 26.5 per cent at the end of the second year and 15.2 per cent at the end of the third year. After the third year four-fifths or more were employed as power-machine operators. That is, it required three years of work at miscellaneous processes before four-fifths of the group were really employed in their trade.

TABLE 61.—OCCUPATIONS AT BEGINNING WORK AND AT END OF EACH SUCCESSIVE YEAR OF EMPLOYMENT OF 100 TRADE-TRAINED GIRLS EMPLOYED IN FACTORY SEWING TRADES AT THE TIME OF THE INVESTIGATION.

NUMBER.

Occupation.	At beginning work.	At end of—									
		1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.	10th year.
TRAINING ACQUIRED INSIDE THE TRADE.											
Custom shops	[1] 8	[2] 7	[2] 6	3	2	2	1	1	......	......	......
Factories: Hand processes—											
Sewing, buttons, snaps, etc	11	13	5	5	3	2	......	......	......	......	......
Folding	6	8	4	......	1	......	1	1	......	......	......
Cleaning	4	5	2	1	1	1	......	......	......	......	......
Inspecting, examining	2	1	2	1	1	......	......	[3] 2	[3] 2	[3] 1	1
Drafting, designing	......	......	1	......	......	......	......	[4] 1	......	......	......
Pressing	......	3	2	......	1	......	1	......	......	......	......
Marking	......	......	1	1	......	......	......	......	......	......	......
Boxing	1	......	......	1	1	1	1	......	......	......	......
Stock	......	......	1	......	......	......	......	......	......	......	......
Total	24	30	18	9	8	4	3	4	2	1	1
Factories: Machine processes— Stitching, etc	[5] 26	33	[5] 44	[5] 47	[5] 41	[5] 34	27	25	19	9	5
Total trained inside the trade (cloth workers)	58	70	68	59	51	40	31	30	21	10	6
TRAINING ACQUIRED OUTSIDE THE TRADE.											
Sewing, millinery goods:											
Custom	[6] 4	[2] 3	[2] 3	......	......	......	......	......	......	......	......
Factory, straw machine operating	......	[7] 1	......	......	......	......	......	......	......	1	......
Total	4	4	3	......	......	......	......	......	......	1	......
Sewing, shoe factory	[8] 3	[8] 3	......	......	......	......	......	......	......	......	......
Other occupations	34	19	16	13	7	6	3	2	......	......	......
Unclassified	1	1	1	......	......	......	1	......	......	......	......
Total trained outside the trade earning wages	42	27	20	13	7	6	4	2	......	1	......
Not earning wages	......	3	1	1	......	......	2	......	......	......	......
Grand total	100	100	89	73	58	46	37	32	21	11	6

PER CENT.

Occupation.	At beginning work.	1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.	10th year.
TRAINING ACQUIRED INSIDE THE TRADE.											
Custom shops	13.8	10.0	8.8	5.1	3.9	5.0	3.2	3.3	......	......	......
Factories: Hand processes	41.4	42.9	26.5	15.2	15.7	10.0	9.7	13.3	9.5	10.0	16.7
Factories: Machine processes	44.8	47.1	64.7	79.7	80.4	85.0	87.1	83.4	90.5	90.0	83.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] 2 were apprentices.
[2] 1 was an apprentice.
[3] 1 gave out work also.
[4] Was a forewoman also.
[5] 1 did cutting on a rotary machine.
[6] Apprentices.
[7] Made feather stick-ups in a factory.
[8] 1 did handwork, cementing.

Taking the average wages of these trade-trained girls on first going to work and at the end of each successive year, we have the following figures:

TABLE 62.—NUMBER AND AVERAGE WEEKLY WAGE AT BEGINNING WORK AND AT END OF EACH SUCCESSIVE YEAR OF EMPLOYMENT OF DRESSMAKERS AND FACTORY SEWING GIRLS STUDIED WHO WERE NOT TRADE-SCHOOL TRAINED.

[This table does not include girls whose wages were not reported.]

Time out of trade school.	Dressmakers.						Factory sewers (cloth machine operators).					
	In the trade.		In other occupations.		Total.		In the trade.		In other occupations.		Total.	
	Number.	Average weekly wage.	Number.	Average weekly wage.	Number.	Average weekly wage.	Number.	Average weekly wage.	Number.	Average weekly wage.	Number.	Average weekly wage.
At beginning work	84	$4.24	12	$5.75	96	$4.43	58	$4.96	[1] 41	$4.38	99	$4.72
At the end of—												
1st year	81	5.30	12	6.83	93	5.49	69	6.12	[1] 26	5.63	95	5.98
2d year	66	6.41	11	7.14	77	6.51	68	7.14	[1] 19	6.61	87	7.02
3d year	61	7.49	5	9.90	66	7.67	58	8.08	13	8.13	71	7.98
4th year	50	8.40	4	10.25	54	8.54	51	8.54	7	8.79	58	8.57
5th year	42	8.95	6	7.83	48	8.81	39	9.12	6	7.67	45	8.92
6th year	38	9.93	4	8.50	42	9.80	30	9.83	3	9.16	33	9.77
7th year	39	10.38	1	9.50	40	10.36	30	9.61	2	7.00	32	9.44
8th year	26	11.10	2	8.50	28	10.91	21	9.31	......	......	21	9.31
9th year	21	11.81	1	10.50	22	11.75	10	8.10	1	11.50	11	8.41
10th year	17	12.24	......	....	17	12.24	6	8.00	......	......	6	8.00

[1] Not including 1 in a foreign country whose wage was not comparable.

AVERAGE WAGES OF TRADE-SCHOOL GIRLS COMPARED WITH THOSE OF TRADE-TRAINED WORKERS.

Comparing these wages with those received by the trade-school girls, the greatest difference is found in the initial stage. This is easily accounted for, as the trade-school girl is usually a little older at beginning work, and her year in the trade school has given her some of the fundamental preparation, so that she generally commences as a worker instead of as an errand girl, stock girl, boxer, examiner, or cleaner. Comparing the two groups of dressmakers working at their trade, the initial wage of the trade-school girls, $5.44, exceeds that of the trade-trained girls by $1.20; by the end of the first year the difference has decreased to 85 cents and the approach continues until at the end of the fourth year the difference is only 35 cents. From this point onward both groups of wages move in rather irregular fashion, but the trade-school girls maintain the advantage up to the tenth year, when the trade-trained girls suddenly take the lead, showing at the end of this year an average wage of $12.24 against an average of $10.17 for the trade-school girls. As at this point there are only 3 of the trade-school girls against 17 of the trade-trained, it is probable that this reversal of the previous situation has but little if any significance.

In the factory branch of the trade likewise the trade-school girl has an immediate advantage, beginning work at an initial wage of $5.14 as compared with $4.96 for the untrained workers. After the first year, however, the wages of the two groups maintain a very close relation, sometimes one and sometimes the other being the higher, in spite of the immediate advantage of the trade-school girls in being able to begin on the machines at entrance. In view of this fact, the wages of the trade-school girls might reasonably be expected to make a more favorable showing in comparison with those of the untrained girls than they do, for almost three-fourths of the girls who have come up through the industry began work in other processes or in wholly unrelated trades, and so may be starting on the machines at a beginner's wage in the second, third, fourth, or fifth year of their working experience.

The wages of the trade-school and the trade-trained workers are not really comparable after the eighth year of working experience for the dressmakers and the sixth year for the factory sewers, because of the small numbers in one group or the other in later years. The average wages of the school-trained and trade-trained workers at the end of these periods were approximately the same, with some slight advantage for the trade-school girl. At the end of her eighth year out of trade school the trade-school girl in dressmaking earned an average wage of $11.88 and the trade-trained girl in her eighth year at work earned $11.10. The trade-school girl in the factory sewing trades at the end of her sixth year earned $9.96 while the trade-trained girl earned $9.83.

Both the school and the trade-trained girls are selected groups for both are "survivors" in the trades in which they are employed. Only a little over one-third[1] of the trade-school girls in the three schools persevered through the school course and entered the trades for which they were trained, and only one-half of those who had been out of trade school as long as five years or over were in their trades at the end of the fifth year.[2] No similar figures are available as to the degree of sifting represented by those who have come up through the industry itself. The chief difference in their experience is the way of approach; for the trade-school girl the way has been smoothed and the girl has been sheltered and protected until she was more mature, while the trade-trained girl has come up through unskilled industries and processes, acquiring her training wholly through her own efforts and initiative. The surprising thing is the similarity of financial advancement, which should provide an impetus to the school to gain an understanding of the requirements of these trades.

---

[1] See Table 13, p 32.

[2] See Table 45, p. 77.

CLASSIFIED WEEKLY WAGES IN SUCCESSIVE YEARS IN SEWING TRADES.

The average wage gives a general idea of the rate at which the girl has advanced in the industrial world, but for trade educators a knowledge of the actual numbers earning $8 or more in each year out of trade school, and of the length of time required to reach economic independence is vitally important. These facts can be obtained from the following tables, which give the classified wages of the trade-school girls for each year out of trade school by trades, and also for the whole group, omitting only the 11 who took cooking or designing. For purposes of comparison, similar tables are given for the trade-trained girls, the wages in their case being taken at the end of each year of working experience.

TABLE 63.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS TRAINED IN EACH OF FOUR SPECIFIED TRADES WHO EARNED EACH CLASSIFIED AMOUNT OF WEEKLY WAGES AT SPECIFIED TIME OUT OF TRADE SCHOOL.

DRESSMAKING.

[Percentages in this table are based on the number of girls whose wages were reported.]

Classified weekly wages.	Number earning each classified weekly amount.										
	At beginning work.	At end of—									
		1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.	10th year.
IN THE TRADE.											
Under $3	10	1	1	......	......	......	......	......	......	......	......
$3 and under $4	38	19	5	3	1	1	1	......	......	......	......
$4 and under $5	86	42	8	2	2	1	1	......	......	......	......
$5 and under $6	114	83	31	8	1	......	......	......	......	......	......
$6 and under $7	156	165	96	39	21	6	1	......	......	......	......
$7 and under $8	7	45	83	74	29	21	3	1	......	1	......
$8 and under $9	3	13	31	41	38	22	13	6	1	......	......
$9 and under $10	......	6	18	28	44	35	21	10	6	3	1
$10 and under $11	......	......	5	12	14	22	18	12	5	4	2
$11 and under $12	......	......	......	1	4	6	7	5	1	......	......
$12 and under $15	......	1	1	5	7	8	13	5	5	1	......
$15 and under $20	......	......	......	......	1	1	4	4	3	......	......
$20 and over	......	......	......	......	......	......	1	1	......	2	......
Not reported	1	5	7	5	7	4	2	2	1	......	1
Total	415	380	286	218	169	127	85	46	22	11	4
IN OTHER OCCUPATIONS.											
Under $3	1	......	......	1	......	......	......	......	......	......	......
$3 and under $4	1	......	3	......	1	......	......	......	......	......	......
$4 and under $5	2	6	3	4	2	......	......	......	......	......	......
$5 and under $6	1	10	10	2	......	3	......	......	......	1	......
$6 and under $7	1	4	13	11	6	4	......	......	1	......	......
$7 and under $8	......	4	7	15	13	6	2	......	1	......	......
$8 and under $9	......	4	7	14	12	10	4	3	......	2	2
$9 and under $10	......	2	2	5	8	6	5	4	3	2	......
$10 and under $11	......	......	......	2	4	7	6	2	2	1	......
$11 and under $12	......	......	......	2	1	2	3	......	......	......	......
$12 and under $15	......	1	......	......	2	1	1	6	4	1	......
$15 and under $20	......	1	......	......	......	1	1	1	1	1	1
$20 and over	......	......	1	2	......	1	1	2	2	3	2
Not reported	......	3	3	3	4	5	4	3	3	1	1
Total	6	35	49	61	53	46	27	21	17	12	6

average initial wage for the three being $5.24. The straw machine operators began at a much higher average, $8.23; their busy season, however, is short.

The girls who entered other than their own trades show a much greater range of average initial wages, ranging from $2.75 to $7.38, but the numbers concerned are so small that there is little significance in this fact. For the whole group the initial wage—$5.61—is almost identical with that for those who went into their own trades. At the close of the first year out of the trade school the girls in other than their own trade have a slight advantage over those who remained in their own trade, their average wage being $6.95 as against $6.48, the average for the larger group. After that, however, the average wage for the girls in their own trade is higher than for those in other occupations, the difference being especially marked from the sixth year onward.

GIRLS WHO NEVER USED TRADE FOR WHICH TRAINED.

A similar difference, except that the divergence is greater, appears if the girls who at some time used their trade be compared with those who had spent nine months or more at the trade school and afterwards became wage earners, but who never used the trade they had been trained for. The following table shows the average wages for these two groups at the end of each year out of trade school:

TABLE 58.—NUMBER AND AVERAGE WEEKLY WAGES, WHEN OUT OF TRADE SCHOOL EACH SPECIFIED LENGTH OF TIME, OF GIRLS TRAINED FOR SEWING TRADES IN BOSTON TRADE SCHOOL WHO ENTERED THEIR TRADE AND OF THOSE WHO DID NOT USE THEIR TRADE.

[This table does not include 11 girls trained in cooking and design and using their trade or girls not reporting their wage at each specified period.]

Length of time out of trade school.	Sewing-trades girls—			
	Who entered their trade.		Who attended trade school 9 months or more but did not use their trade.	
	Number.	Average weekly wage.	Number.	Average weekly wage.
At first leaving	718	$5.60	59	$5.74
At the end of—				
1st year	691	6.55	58	6.19
2d year	553	7.41	49	6.42
3d year	447	8.25	49	7.52
4th year	337	8.99	33	7.68
5th year	265	9.67	22	8.18
6th year	185	10.56	12	8.50
7th year	111	11.09	9	8.06
8th year	60	11.66	4	7.00
9th year	35	11.31	....	....
10th year	14	10.90	....	....

Those who did not use their trade began wage earning at a slightly higher average wage than those who did, but by the end of the first year they had lost the advantage, and from that time on those using their trade show the higher average, the difference becoming considerable as the number of years out of trade school increases.

TIME REQUIRED BY DIFFERENT GROUPS TO REACH $8 A WEEK.

One of the purposes of the study of wages is to discover how soon after leaving trade school a girl may expect to earn a living wage. If $8 be accepted as a minimum living wage, then in general the trade-school girls who remain in their trades have reached economic independence, as expressed in an average wage of $8, by the end of the third year; those who leave their own trades reach this point by the end of the fourth year, and those who never use their own trades by the end of the fifth year. There is considerable difference in this respect among those following different trades. The straw machine operators begin at an average wage of over $8, and by the end of the third year are averaging $14.56; the milliners and cloth machine operators have reached and passed the $8 mark by the end of the third year, and the dressmakers reach it somewhere between the end of the third and the fourth years out. The girls trained for the sewing trades who have left them show a curious difference in their rate of advancement in the trades they take up. Those trained for dressmakers who go into other trades average $8 a week sooner than those who remain in their trade; those who go out from cloth machine operating take seven years instead of three to reach this average, while the milliners and the straw machine operators take four. The number leaving their own trades for others is small, and it is impossible to say definitely what is the significance of this difference. The preceding chapter, however, has shown that many of those who leave their trade do so because they are unfitted, either physically, mentally, or by lack of suitable training, to succeed there, and it is entirely likely that this same handicap accounts for their lack of rapid progress in other trades. The girls who have never used their own trades do not reach the average of $8 a week until the end of the fifth year out of trade school. Summing up the situation in this respect, it appears that the girls who remain in the trade for which they were trained first reach this minimum of economic independence, then the girls who have used their own trades but have left them for others, and last the girls who never have used their own trade.

RATE OF ADVANCE IN DIFFERENT GROUPS.

The rate of increase of wages in the different groups is shown by the Table 59. The table shows the rate of advance over the initial wage when the girls were out of school each specified number of years and the rate of advance of wages at the end of each year out of school over wages received at the end of the preceding year.

TABLE 63.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS TRAINED IN EACH OF FOUR SPECIFIED TRADES WHO EARNED EACH CLASSIFIED AMOUNT OF WEEKLY WAGES AT SPECIFIED TIME OUT OF TRADE SCHOOL—Concluded.

STRAW MACHINE OPERATING—Concluded.

Classified weekly wages.	Number earning each classified weekly amount.										
	At beginning work.	At end of—									
		1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.	10th year.
IN OTHER OCCUPATIONS.											
Under $3	1										
$3 and under $4	1										
$4 and under $5		1	2	1	1						
$5 and under $6		2	3	1							
$6 and under $7		5		5	1	2					
$7 and under $8		2	4	3	3	2	2	1			
$8 and under $9			3	1		1	1	1	1		
$9 and under $10		1	2	1	2						
$10 and under $11				2	2	1					
$11 and under $12				1	2	1	2				
$12 and under $15						1	1	1	1		
$15 and under $20							1	1			
$20 and over											
Not reported				3	2	1					
Total	2	11	14	18	13	9	7	4	2		
	Per cent earning each classified amount.										
IN THE TRADE.											
Under $8	57.8	39.3	9.1	11.1	7.7						
$8 and over	42.2	60.7	90.9	88.9	92.3	100.0	100.0	100.0	100.0		
IN OTHER OCCUPATIONS.											
Under $8		90.9	64.3	66.7	45.5	50.0	28.6	25.0			
$8 and over	100.0	9.1	35.7	33.3	54.5	50.0	71.4	75.0	100.0		

TOTAL IN THE FOUR SEWING TRADES.

	Number earning each classified weekly amount.										
IN THE TRADE.											
Under $3	28	3	1								
$3 and under $4	64	23	6	3	1	1	1				
$4 and under $5	145	68	13	4	4	2	1	1			
$5 and under $6	177	117	43	11	2	1	2				
$6 and under $7	225	250	138	51	24	7	1	1	1		
$7 and under $8	25	71	121	93	39	24	5	1		2	
$8 and under $9	14	28	48	63	54	29	16	8	1		
$9 and under $10	7	12	27	35	53	44	27	12	8	4	1
$10 and under $11	6	5	10	17	22	28	22	17	7	4	2
$11 and under $12	5	9	4	2	6	12	10	5	1		
$12 and under $15	5	11	13	12	14	12	24	12	8	3	
$15 and under $20		2	5	9	7	8	9	5	4		
$20 and over			2	3	3	3	2	2	1	2	
Total[1]	699	599	431	303	229	171	120	64	31	15	3
IN OTHER OCCUPATIONS.											
Under $3	2			1							
$3 and under $4	3	1	3	2	1						
$4 and under $5	4	12	12	10	5	1	1				
$5 and under $6	3	23	24	9	4	8	4	3	1	2	2
$6 and under $7	5	22	28	38	15	8	3	1	3	1	1
$7 and under $8		13	24	27	27	17	8	4	2		
$8 and under $9	1	9	20	30	20	21	16	8	2	4	3
$9 and under $10		7	6	10	17	13	9	9	5	4	
$10 and under $11		2	3	7	9	11	8	6	4	3	2
$11 and under $12				5	4	5	8	1	2	1	
$12 and under $15		1		1	3	5	4	11	6	1	
$15 and under $20	1	1		2	3	4	3	2	2	1	1
$20 and over		1	2	2		1	1	2	2	3	2
Total[1]	19	92	122	144	108	94	65	47	29	20	11

---

[1] Not including girls whose wages were not reported.

TABLE 64.—NUMBER AND PER CENT OF 100 TRADE-TRAINED GIRLS IN EACH OF TWO SPECIFIED TRADES WHO EARNED EACH CLASSIFIED AMOUNT OF WEEKLY WAGES AT BEGINNING WORK AND AT THE END OF SUCCESSIVE YEARS AT WORK.

[Percentages in this table are based on the number of girls whose wages were reported.]

DRESSMAKING.

Classified weekly wages.	Number earning each classified weekly amount.										
	At beginning work.	At end of—									
		1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.	10th year.
IN THE TRADE.											
Under $3	25	7	2	1							
$3 and under $4	22	16	6	2							
$4 and under $5	10	18	10	2							
$5 and under $6	12	12	10	12	1			1			
$6 and under $7	6	13	14	8	9	2	1				
$7 and under $8	3	7	10	10	11	9	1	1			1
$8 and under $9	3	4	6	12	12	9	12	6	3	2	2
$9 and under $10	1	2	4	8	11	14	9	11	7	5	1
$10 and under $11	1	1	3	3	4	6	9	10	6	4	4
$11 and under $12	1	1	1	2	1	2	3	5	4	4	2
$12 and under $15				1	1		2	4	5	3	4
$15 and under $20										2	2
$20 and over							1	1	1	1	1
Not reported	3	4	4	3	3	3	1				
Total	87	85	70	64	53	45	39	39	26	21	17
IN OTHER OCCUPATIONS.											
Under $3	2										
$3 and under $4											
$4 and under $5	4	3	2	1							
$5 and under $6	1	3	4								
$6 and under $7	1	2	2	1	2	3	1		1		
$7 and under $8	2					1	1				
$8 and under $9	1	1									
$9 and under $10		2	1			1	1	1			
$10 and under $11				2	1	1	1		1	1	
$11 and under $12	1	1	1								
$12 and under $15			1								
$15 and under $20				1	1						
$20 and over											
Not reported	1										
Total	13	12	11	5	4	6	4	1	2	1	
	Per cent earning each classified weekly amount.										
IN THE TRADE.											
Under $8	92.9	90.1	78.8	57.4	42.0	26.2	5.3	5.1	7.1		5.9
$8 and over	7.1	9.9	21.2	42.6	58.0	73.8	94.7	94.9	92.9	100.0	94.1
IN OTHER OCCUPATIONS.											
Under $8	83.3	66.7	72.7	40.0	50.0	66.7	50.0		50.0		
$8 and over	16.7	33.3	27.3	60.0	50.0	33.3	50.0	100.0	50.0	100.0	

CLOTH MACHINE OPERATING.

	Number earning each classified weekly amount.										
IN THE TRADE.											
Under $3	2	1	1								
$3 and under $4	18	8	1					1			
$4 and under $5	15	8	3	3		1	1		1		
$5 and under $6	7	15	11	5	3	2			1	1	
$6 and under $7	10	16	22	11	9	5	1	1		1	
$7 and under $8	4	14	12	9	9	3	3	2	3	2	4
$8 and under $9		3	9	13	12	12	8	8	3	3	1
$9 and under $10	1	3	5	10	9	6	7	11	8	3	1
$10 and under $11	1	1	1	3	2	3	4	2	2		
$11 and under $12			1	1	5	4	2	1	2		
$12 and under $15			2	3	2	1	2	3			
$15 and under $20						2	2	1	1		
$20 and over											
Not reported		1		1		1	1				
Total	58	70	68	59	51	40	31	30	21	10	6

TABLE 64.—NUMBER AND PER CENT OF 100 TRADE-TRAINED GIRLS IN EACH OF TWO SPECIFIED TRADES WHO EARNED EACH CLASSIFIED AMOUNT OF WEEKLY WAGES AT BEGINNING WORK AND AT THE END OF SUCCESSIVE YEARS AT WORK—Concld.

CLOTH MACHINE OPERATING—Concluded.

Classified weekly wages.	Number earning each classified weekly amount.										
	At beginning work.	At end of—									
		1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.	10th year.
IN OTHER OCCUPATIONS.											
Under $3	8	3	2	......	......	......	......	......	......	......	......
$3 and under $4	9	4	......	......	......	......	......	......	......	......	......
$4 and under $5	9	3	1	1	1	1	......	......	......	......	......
$5 and under $6	8	4	4	3	1	2	......	......	......	......	......
$6 and under $7	5	4	6	2	......	......	1	1	......	......	......
$7 and under $8	2	5	3	4	2	1	1	1	......	......	......
$8 and under $9	......	2	......	......	......	......	......	......	......	......	......
$9 and under $10	......	......	1	1	1	1	......	......	......	......	......
$10 and under $11	......	1	1	1	......	......	......	......	......	......	......
$11 and under $12	......	......	......	......	......	......	......	......	......	1	......
$12 and under $15	......	......	1	1	2	1	1	......	......	......	......
$15 and under $20	......	......	......	......	......	......	......	......	......	......	......
$20 and over	......	......	......	......	......	......	......	......	......	......	......
Not reported	1	1	1	......	......	......	1	......	......	......	......
Total	42	27	20	13	7	6	4	2	......	1	......
	Per cent earning each classified amount.										
IN THE TRADE.											
Under $8	96.6	89.9	73.5	48.3	41.2	28.2	16.7	13.3	23.8	40.0	66.7
$8 and over	3.4	10.1	26.5	51.7	58.8	71.8	83.3	86.7	76.2	60.0	33.3
IN OTHER OCCUPATIONS.											
Under $8	100.0	88.5	84.2	76.9	57.1	66.7	66.7	100.0	......	......	......
$8 and over	......	11.5	15.8	23.1	42.9	33.3	33.3	......	......	100.0	......

Considering the trade-school girls as a group, and omitting those whose wages were not reported, it appears that a considerable apprenticeship in the trade itself was necessary before the majority of them reached the degree of economic independence expressed in wages of $8 or more a week. Of those who followed their trade, at the end of the third year more than half—53.4 per cent—were earning less than $8. By the end of the fourth year, however, a good majority—69.4 per cent—had reached or passed the $8 wage, and from that time on the proportion earning less than this figure decreased rapidly. Those who left their own trade for others made slower progress; at the end of the third year, 60.4 per cent were still earning less than $8 a week, and at the end of the fourth year, only 51.9 per cent were earning $8 or more. Considerable differences appear among those trained for the different sewing trades. At the end of the third year nearly three-fifths (59.2 per cent) of the girls who went into dressmaking earned under $8, but in their fourth year, two-thirds of those who remained in their trade, and over one-half (55.1 per cent) of those who had gone into other occupations were earning $8 or more. Of those who remained in the millinery trade, over one-half (54 per cent) earned $8 or more in the third year; the short working season, however, must be counted against this apparent advantage. Not until the end of the fourth year had 51.6 per cent of those who left millinery and were earning in other occupations reached $8 or more a week, though longer seasons may have equalized the actual income for the two groups. One-half of the cloth machine operators remaining in their trade earned $8 or more by the end of their third year, but not until their seventh year's experience had one-half of those who went into other occupations reached this wage. A comparatively small number of girls have gone into the straw machine operating and over two-fifths of these earned $8 a week or more from the beginning. While the wages here are better than in most sewing trades, the opportunity for the young girl is very limited, few employers wishing to take women under 21 years of age. The seasons also are short, causing a sifting out into other occupations. Not until the fourth year had one-half or more of those leaving the trade reached a wage of $8 or over.

Turning to the wages of the trade-trained girls, it is at once apparent that they show a wider range and less grouping about the average than those of the trade-school girls. This might be expected. The trade-school girls are a fairly homogeneous group, have had similar preparation and previous experience, and naturally show a similar rate of advancement in the trade. The difference is, however, marked. The wages of the trade-school girl in dressmaking cluster about the average wage, and the middle 50 per cent (except on first leaving school) come within a $2 range up to the fourth year. The wages of the girls who have acquired their training in the trade scatter much more from the average, and the wages of the middle 50 per cent scatter within a $4 range up to the fifth year. Larger numbers might show more grouping about the average wage, but the varied background and experiences of these girls must undoubtedly result in a wider wage range than that of the trade-school girls. More than one-half (58 per cent) of the trade-trained dressmakers, however, earned $8 or more by the end of the fourth year, and 73.8 per cent[1] by the end of the fifth year, as compared with 66.7 per cent and 76.4 per cent[2] of the trade-school dressmakers at the end of the fourth and fifth years, respectively. Similarly, in the factory sewing trades, one-half of both school and trade trained workers earned $8 or more by the end of the third year, and about three-fifths at the end of the fourth year.

---

[1] See Table 64, p. 111.

[2] See Table 63, p. 108.

INITIAL WAGE OF THE TRADE-SCHOOL GIRL.

POLICY OF SCHOOL IN RESPECT TO INITIAL WAGE.

The policy of the Boston Trade School authorities in recent years under public management has been to establish a $6 minimum placement wage for their accredited pupils. During the second five years covered by the investigation, the pupils leaving the school show as compared with those going out in the first five years an increase in average age, a higher level of previous school training, and a longer period spent in the trade-school training.[a] All these factors, combined with the better organization of the trade training and the increased efficiency due to increasing experience, naturally tended to bring about a higher initial wage, apart from the efforts of the management. The average initial wage for those going out during the first five years was $4.93, while during the last five years it was $5.82, an increase of 18.1 per cent. The advance in the initial wage varied in the several trades, being greatest in dressmaking and millinery, which showed increases, respectively, of 20.5 per cent and 22 per cent. The special emphasis which has been put on the training for these trades gives a probable explanation of this superiority in the increase of the initial wage. In the cloth power-machine operating trades the girls showed an increase of 14.6 per cent in initial wage, while for those entering the straw machine-operating trades there was a decrease of 13.4 per cent. This group also shows a falling off in average age at time of entering the trade, whereas all the others show an increase. Since the initial wage for these girls is based on the experiences of only 66 girls, and since only 13 of these had entered the trade during the first five-year period, not much significance can be attached to this decrease.

INITIAL WAGE FOR TWO FIVE-YEAR PERIODS.

Turning to the classified wages, Table 65 shows how the initial wage has varied in the two five-year periods.

It will be seen from this that the ideal of a $6 placement wage has been only partially realized, but that there has been a marked increase, nevertheless, in the proportion receiving this initial wage. During the first period 80.9 per cent of the girls began work at a weekly wage of less than $6; during the second period only 49.2 per cent began under that figure. During the first period a scant fifth of the number entering their trades began at as much as $6 or more; during the second period half entered at that wage or over. The proportion differs, however, according to the trade entered.

---

[a] See Tables 5, 6, and 20, pp. 22, 24, and 38.

During the second period, 49.8 per cent of those taking up dressmaking, 59.7 per cent of those in millinery, 57.3 per cent of those in cloth machine operating, and 18.9 per cent of those in straw machine operating began work at less than $6 a week.

TABLE 65.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS ENTERING THE FOUR SEWING TRADES DURING EACH OF TWO SPECIFIED 5-YEAR PERIODS WHO EARNED EACH CLASSIFIED INITIAL WAGE.

Weekly wages at beginning work.	Girls receiving specified initial wage.[1]			
	1904 to 1909		1909 to 1914.	
	Number.	Per cent.	Number.	Per cent.
Under $3	14	6.3	14	2.8
$3 and under $4	36	16.3	31	6.2
$4 and under $5	74	33.4	75	15.1
$5 and under $6	55	24.9	125	25.1
$6 and under $7	27	12.2	203	40.8
$7 and under $8	6	2.7	21	4.2
$8 and under $9	1	.5	13	2.6
$9 and under $10	3	1.4	4	.8
$10 and over	5	2.3	12	2.4
Total	[2] 221	100.0	[3] 4[illegible]	10[illegible].0

---

[1] This table does not check with Table 63, because not all of these girls began work immediately on leaving trade school.
[2] Not including 6 who did not report wages.
[3] Not including 8 who did not report wages.

RATE OF WAGE ADVANCE COMPARED WITH INITIAL WAGE.

Has the young trade school girl placed at a higher initial wage under the public-school system any permanent advantage over the girl placed by the private school in earlier years at a lower rate? To test this a comparison was made of the wages earned in the second year out by the girls going out in two successive years of each five-year period. The girls trained in dressmaking were selected for the test, since the school has put its best efforts and greatest emphasis on training for this trade. The girls going out in 1906–7 and 1907–8, the third and fourth years of the period when the school was under private management, and those of 1911–12 and 1912–13, the corresponding years of its experience under public management, were taken for the comparison. Table 66 shows the classified wages of these two groups of girls at the end of their second year out of trade school.

From the standpoint of previous preparation the earlier classes had a slight advantage, since four-fifths (83 per cent) of their number against two-thirds (69.4 per cent) of the two later classes had attended trade school nine months or more. At the end of the second year of wage earning the wage distribution of the two groups does not show a great variation. About one-fifth (21.4 per cent) of the first group against about one-sixth (15.4 per cent) of the second had not yet reached $6 a week; 55.3 per cent of the first and 61.2 per cent of the second group were earning $6 but less than $8 a week, and the proportions who had reached the comparative independence of $8 or more a week were almost identical for the two groups—23.4 per cent for the first, and 23.6 per cent for the second. The average wage, likewise, shows very little difference. At the end of the second year out of school the average wage of the girls going out in the two earlier classes was $7.05, and in the two later classes, $7.18. Comparing the two classes of each period separately, there is still little difference. For the girls going out in 1906–7 the wage at the end of the second year averaged $7.18, for those going out in 1911-12, $7.20. For those going out in 1907–8 the wage at the end of the second year averaged $6.96, and for those going out in 1912–13, $7.15. From the standpoint both of the average wage and of the wage distribution of the workers, therefore, it is evident that the end of the second year finds the girls who went out in the later period but little ahead of those who went out in the earlier. The higher placement wage, thus, brings immediate financial advantages but does not insure automatic wage advance at the same rate.

TABLE 66.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS ENTERING DRESSMAKING TRADE IN SPECIFIED YEARS WHO EARNED EACH CLASSIFIED AMOUNT OF WEEKLY WAGES AT END OF SECOND YEAR.

Classified weekly wages.	Girls earning each classified weekly wage at end of second year at work.							
	Number.						Per cent.	
	1906-7[1]	1907-8[1]	1911-12[2]	1912-13[2]	1906-7 and 1907-8[1]	1911-12 and 1912-13[2]	1906-7 and 1907-8[1]	1911-12 and 1912-13[2]
Under $3	....	....	....	1	....	1	....	1.2
$3 and under $4	1	1	1	1	2	2	4.3	2.4
$4 and under $5	1	1	....	1	2	1	4.3	1.2
$5 and under $6	1	5	6	3	6	9	12.8	10.6
$6 and under $7	5	9	18	5	14	23	29.8	27.1
$7 and under $8	6	6	16	13	12	29	25.5	34.1
$8 and under $9	2	2	4	6	4	10	8.5	11.8
$9 and under $10	3	2	6	2	5	8	10.6	9.4
$10 and over	....	2	1	1	2	2	4.3	2.4
Total	[3] 19	[4] 28	[5] 52	[6] 33	[7] 47	[8] 85	100.0	100.0
Average wage	$7.18	$6.96	$7.20	$7.15	$7.05	$7.18	....	....

[1] Under private management.
[2] Under public management.
[3] 14 or 73.7 per cent were in trade school 9 months or more.
[4] 25 or 89.3 per cent were in trade school 9 months or more.
[5] 28 or 53.8 per cent were in trade school 9 months or more.
[6] 31 or 94 per cent were in trade school 9 months or more.
[7] 39 or 83 per cent were in trade school 9 months or more.
[8] 59 or 69.4 per cent were in trade school 9 months or more.

WAGES AND OCCUPATIONS OF TRADE-SCHOOL GIRLS AT SPECIFIED PERIODS IN THEIR WORKING EXPERIENCE.

GIRLS REMAINING IN TRADE FOR WHICH TRAINED AND THOSE LEAVING IT FOR OTHER OCCUPATIONS.

Many girls, as has been seen, sift out of the trades for which they have been trained into other wage-earning occupations. A cross section of their working experience gained through a more intensive study of the first, third, and fifth years out of trade school shows both the kind of occupations into which they go and whether they gain or lose by going. The following table gives for the girls trained in each trade the percentage in each wage group at the end of the first, third, and fifth years, according to whether they remained in their own trade, entered some allied trade, or sought wholly unrelated occupations:[a]

TABLE 67.—NUMBER OF BOSTON TRADE SCHOOL GIRLS TRAINED FOR EACH OF FOUR SPECIFIED TRADES AND PER CENT EARNING EACH CLASSIFIED AMOUNT PER WEEK IN SPECIFIED OCCUPATION GROUPS AT END OF FIRST, THIRD, AND FIFTH YEARS OUT OF TRADE SCHOOL.

END OF FIRST YEAR.

Trade for which trained and group in which earning wages.	Number.[1]	Per cent of girls earning per week—				
		Under $6	$6 and under $8	$8 and under $10	$10 and over.	Total.
Dressmakers: Earning wages in—						
Own trade	375	38.7	56.0	5.1	0.3	100.0
Other needle trades	9	55.6	22.2	22.2	....	100.0
Other occupations	23	47.8	26.1	17.4	8.7	100.0
Total	407	39.6	53.6	6.1	.7	100.0
Milliners: Earning wages in—						
Own trade	117	43.6	47.9	5.9	2.5	100.0
Other needle trades	7	28.6	57.1	14.3	....	100.0
Other occupations	19	42.1	42.1	5.3	10.5	100.0
Total	143	42.7	47.6	6.3	3.5	100.0
Cloth machine operators: Earning wages in—						
Own trade	51	25.5	68.6	3.9	2.0	100.0
Other needle trades	7	14.3	57.1	14.3	14.3	100.0
Other occupations	16	37.5	25.0	37.5	....	100.0
Total	74	27.0	58.1	12.2	2.7	100.0
Straw machine operators: Earning wages in—						
Own trade	56	3.6	35.7	21.4	39.3	100.0
Other needle trades	2	50.0	....	50.0	....	100.0
Other occupations	9	22.2	77.8	....	....	100.0
Total	67	7.4	40.3	19.4	32.8	100.0

END OF THIRD YEAR.

Trade for which trained and group in which earning wages.	Number.[1]	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Total.
Dressmakers: Earning wages in—						
Own trade	213	6.1	53.0	32.4	8.5	100.0
Other needle trades	11	27.3	45.4	27.3	....	100.0
Other occupations	47	8.5	44.9	34.0	12.8	100.0
Total	271	7.4	51.3	32.5	8.9	100.0

---

[1] Not including those whose wages were not reported.

[a] Full details as to earnings at the end of each year of working experience have already been given in Tables 57 and 58, pp. 99 and 100.

TABLE 3[illegible].—NUMBER OF BOSTON TRADE SCHOOL GIRLS TRAINED FOR EACH OF FOUR SPECIFIED TRADES AND PER CENT EARNING EACH CLASSIFIED AMOUNT PER WEEK IN SPECIFIED OCCUPATION GROUPS AT END OF FIRST, THIRD, AND FIFTH YEARS OUT OF TRADE SCHOOL—Concluded.

END OF THIRD YEAR—Concluded.

Trade for which trained and group in which earning wages.	Number.[1]	Per cent of girls earning per week—				
		Under $6	$6 and under $8	$8 and under $10	$10 and over.	Total.
Milliners: Earning wages in—						
Own trade	50	8.0	38.0	40.0	14.0	100.0
Other needle trades	7	....	42.9	57.1	....	100.0
Other occupations	41	17.1	43.9	24.4	14.6	100.0
Total	98	11.2	40.8	34.7	13.3	100.0
Cloth machine operators: Earning wages in—						
Own trade	22	4.5	45.5	36.4	13.6	100.0
Other needle trades	5	20.0	60.0	....	20.0	100.0
Other occupations	18	27.8	38.9	27.8	5.6	100.0
Total	45	15.6	44.4	28.9	11.1	100.0
Straw machine operators: Earning wages in—						
Own trade	18	....	11.1	5.6	83.3	100.0
Other needle trades	1	....	100.0	....	....	100.0
Other occupations	14	14.3	50.0	14.3	21.4	100.0
Total	33	6.1	30.3	9.1	54.5	100.0
END OF FIFTH YEAR.						
Dressmakers: Earning wages in—						
Own trade	123	1.6	22.0	46.3	30.1	100.0
Other needle trades	7	28.6	14.3	42.8	14.3	100.0
Other occupations	34	2.9	26.5	38.2	32.4	100.0
Total	164	3.0	22.6	41.5	29.9	100.0
Milliners: Earning wages in—						
Own trade	30	3.3	10.0	40.0	46.7	100.0
Other needle trades	4	....	25.0	75.0	....	100.0
Other occupations	25	....	28.0	36.0	36.0	100.0
Total	59	1.7	18.6	40.7	39.0	100.0
Cloth machine operators: Earning wages in—						
Own trade	9	11.1	11.1	44.5	33.3	100.0
Other needle trades	2	50.0	50.0	....	....	100.0
Other occupations	14	35.7	14.3	35.7	14.3	100.0
Total	25	28.0	16.0	36.0	20.0	100.0
Straw machine operators: Earning wages in—						
Own trade	9	....	....	....	100.0	100.0
Other needle trades	1	....	100.0	....	....	100.0
Other occupations	7	....	42.9	14.3	42.9	100.0
Total	17	....	23.5	5.9	70.6	100.0

[1] Not including those whose wages were not reported.

Since $8 a week has been taken as the minimum wage which makes a girl self-supporting, the attainment of that wage may be regarded as a measure of a girl's success in her trade. The attainment of a bare living wage may not be considered much of a success, but certainly the girl who does not attain it has not succeeded, and as a modest standard it may pass. Taking this as the measure, then, which fare better, the girls who remain in their own trade or who go into something else? The following summary shows the position for each group:

TABLE 68.—PER CENT OF BOSTON TRADE SCHOOL GIRLS EARNING $8 AND OVER PER WEEK IN SPECIFIED OCCUPATION GROUPS AT END OF FIRST, THIRD, AND FIFTH YEARS OUT OF TRADE SCHOOL.

Trade for which trained and occupation group.	Per cent earning $8 and over per week at end of specified year out of trade school.		
	1st year.	3d year.	5th year.
Dressmakers: Earning wages in—			
Own trade	5.4	40.9	76.4
Other needle trades	22.2	27.3	57.1
Other occupations	26.1	46.8	70.6
Milliners: Earning wages in—			
Own trade	8.4	54.0	86.7
Other needle trades	14.3	57.1	75.0
Other occupations	15.8	39.0	72.0
Cloth machine operators: Earning wages in—			
Own trade	5.9	50.0	77.8
Other needle trades	28.6	20.0	....
Other occupations	37.5	33.4	50.0
Straw machine operators: Earning wages in—			
Own trade	60.7	88.9	100.0
Other needle trades	50.0	....	....
Other occupations	....	35.7	57.2

The straw machine operators present a considerable contrast to the other three groups, since at each period those remaining in their own trade show a larger percentage earning $8 or more a week than do those who have gone into either allied trades or other occupations. In the other trades at the end of the first year those remaining in their own trade show a smaller proportion who have reached self-support than those who went into other wage-earning pursuits, but thereafter the position changes. At the end of the third year, the cloth machine operators remaining in their own trade show a considerably larger proportion in the $8 group than is found among those who have left their trade. Among the dressmakers, those who have gone into other occupations show a larger proportion earning $8 than those who have remained in their own trade, and these, in turn, show a larger proportion in this group than those who have gone into allied needle trades. By the end of the fifth year those who remained in their own trade show everywhere a larger proportion earning $8 than is found among either those who have gone into other needle trades or into other occupations. So far as this table can be taken as indicative it seems to show that while girls may in their first few years out of school do as well or even better in trades for which they have not been trained, in the long run the majority fare better by keeping to the line of work for which they have been prepared.

The table shows also that the girls who leave their own trades seem more inclined to go into something totally different than into related trades. In general the proportion going into unrelated trades is greater at the end of the first year and increases more rapidly than the proportion going into other needle trades. The following summary shows this difference:

TABLE 69.—PER CENT OF BOSTON TRADE SCHOOL GIRLS TRAINED FOR SPECIFIED TRADES WHO WERE IN OTHER NEEDLE TRADES AND IN OTHER UNALLIED OCCUPATIONS AT END OF FIRST AND FIFTH YEARS OUT OF TRADE SCHOOL.

Trade for which trained.	In other needle trades.		In other unallied occupations.	
	1st year.	5th year.	1st year.	5th year.
Dressmaking	2.2	4.3	5.7	20.7
Millinery	4.9	6.8	13.3	42.4
Cloth machine operating	9.5	8.0	21.6	56.0
Straw machine operating	3.0	5.9	13.4	41.2

The proportion of those going into other occupations who reach a wage of $8 a week or more differs considerably with the trade from which they come. Thus at the end of the fifth year 70.6 per cent of those trained for dressmaking and 72 per cent of those trained for millinery who had gone from their own trade into other occupations had reached $8, while of those trained for cloth machine operating and straw machine operating who had gone into other occupations only 50 per cent and 57.2 per cent, respectively, had been equally successful. This difference, of course, is largely due to the kind of occupation into which they go, and that in turn depends to a considerable extent upon the type of girl who takes the training for the different trades. The following table shows the industries in which the girls trained for the four leading trades who had left their trades were found at the time of the investigation:

TABLE 70.—NUMBER OF BOSTON TRADE SCHOOL GIRLS IN SPECIFIED TRADES OTHER THAN THOSE FOR WHICH TRAINED, AT END OF FIRST, THIRD, AND FIFTH YEARS OUT OF TRADE SCHOOL.

Trade for which trained and unallied trade in which earning wages.	Number at end of specified year out of trade school.					
	First year.		Third year.		Fifth year.	
	Wages reported.	Wages not reported.	Wages reported.	Wages not reported.	Wages reported.	Wages not reported.
DRESSMAKING.						
Trade in which earning wages:						
Manufactures	8	1	9	1	2	1
Transportation	1	....	5	....	3	....
Trade	2	1	6	....	4	1
Professional service	2	1	5	1	6	2
Domestic service	1	....	5	....	3	....
Clerical employment	9	....	17	1	16	1
Total	23	3	47	3	34	5

TABLE 70.—NUMBER OF BOSTON TRADE SCHOOL GIRLS IN SPECIFIED TRADES OTHER THAN THOSE FOR WHICH TRAINED, AT END OF FIRST, THIRD, AND FIFTH YEARS OUT OF TRADE SCHOOL—Concluded.

Trade for which trained and unallied trade in which earning wages.	Number at end of specified year out of trade school.					
	First year.		Third year.		Fifth year.	
	Wages reported.	Wages not reported.	Wages reported.	Wages not reported.	Wages reported.	Wages not reported.
MILLINERY.						
Trade in which earning wages:						
Manufactures	1	....	2	....	2	....
Transportation	2	....	7	....	2	....
Trade	4	....	8	....	2	....
Professional service	4	....	2	....	2	....
Domestic service	1	....	2	....	3	....
Clerical employment	7	....	20	....	14	....
Total	19	....	41	....	25	....
CLOTH MACHINE OPERATING.						
Trade in which earning wages:						
Manufactures	4	1	8	....	6	....
Transportation	....	....	....	....	....	....
Trade	2	....	2	1	1	1
Professional service	1	....	2	....	3	1
Domestic service	6	....	6	....	4	....
Clerical employment	3	....	....	....	....	....
Total	16	1	18	1	14	2
STRAW MACHINE OPERATING.						
Trade in which earning wages:						
Manufactures	....	....	3	....	1	....
Transportation	2	....	3	....	2	....
Trade	2	....	....	1	1	....
Professional service	....	....	1	1	1	....
Domestic service	3	....	3	....	1	....
Clerical employment	2	....	4	1	1	....
Total	9	....	14	3	7	....
Grand total	67	4	120	7	80	7

The requirements made by these different occupations upon the girls entering them naturally differ widely. Probably professional and clerical service make higher demands than any other of the occupations into which the girls go, while manufactures and domestic service make lower. Table 71 shows the extent to which girls trained for the different trades went into these two significant groups of occupations.

At the end of the first year the milliners show the smallest proportion of girls in the unrelated manufactures and domestic service, and much the largest proportion in professional and clerical service. By the end of the fifth year the dressmakers and milliners have changed places in this respect, the dressmakers showing the smallest proportion in manufactures and domestic service, and the largest in professional and clerical service. The cloth and straw power-machine operators show relatively small proportions in professional and clerical service at the end of the first year, and, contrary to the situation among the groups trained for the other two trades, there is no notable increase in this proportion by the end of the fifth year; in fact, among those trained for cloth machine operating, there is a decrease. Naturally, in view of the large proportion in unrelated manufactures and domestic service and the small proportion in the ranks of professional and clerical service, the wages of the power-machine operators who left their trade are considerably lower than of those who remained, and also lower than the wages of the girls who left dressmaking and millinery and went into other occupations.

TABLE 71.—PER CENT OF BOSTON TRADE SCHOOL GIRLS LEAVING TRADE FOR WHICH TRAINED WHO WERE FOUND IN SPECIFIED UNALLIED TRADES, AT END OF FIRST AND FIFTH YEARS OUT OF TRADE SCHOOL.

Trade for which trained.	Per cent in specified unallied trades.[1]			
	End of first year.		End of fifth year.	
	Manufactures and domestic service.	Professional and clerical service.	Manufactures and domestic service.	Professional and clerical service.
Dressmaking	39.1	47.8	14.7	64.7
Millinery	10.5	57.9	20.0	64.0
Cloth machine operating	62.5	25.0	71.4	21.4
Straw machine operating	33.3	22.2	28.6	28.6

[1] These percentages are based on the number going into other occupations who reported their earnings, and are thus comparable with the percentages given in Table 67.

The cloth machine operators, it will be observed, make a worse showing than any of the other groups in the matter of wage earning and wage opportunity. This is probably explained by the lower educational standard of the cloth machine operators, which is shown in their comparatively low standard of academic schooling. Seventy-one per cent of the dressmakers, 82 per cent of the milliners, and 71 per cent of the straw machine operators, as compared with 54 per cent of the cloth machine operators, were grammar-school graduates or had attended high school. The advantages of the higher educational background of the milliners are apparent in the larger proportion who enter trades requiring academic education. The table just given shows that at the end of the first year a larger proportion of the milliners than of any other group were in professional service or clerical occupations.

Trade educators sometimes say that it is a matter of indifference whether a girl uses her trade training in a wage-earning capacity, for she will be the better prepared by it for whatever she undertakes. But these figures raise the question whether it is the trade school, after all, which does or should be expected to provide the general training for whatever the girl may later choose. If, ultimately, she is going to enter business pursuits or has any particular capacity for such work, would she not be better prepared in the commercial high schools which train directly for these lines? The decided advantage which the high-school graduate has in the business pursuits[1] suggests the advisability of urging those who are likely to go into this work to devote as long a time as possible to preparation.

TABLE 72.—NUMBER OF BOSTON TRADE SCHOOL GIRLS WHO NEVER USED THEIR TRADES FOUND IN SPECIFIED TRADES EARNING EACH CLASSIFIED WEEKLY AMOUNT OF WAGES AT END OF FIRST, THIRD, AND FIFTH YEARS OUT OF TRADE SCHOOL.

Year out of trade school and trades or occupations.	Number earning classified weekly wages.					
	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.
FIRST YEAR.						
In related trades:						
Custom clothing	1	1				2
Ready-made clothing	1	1				2
Boots and shoes	3	3				6
Total	5	5				10
In other occupations:						
Manufactures	4	2	2		1	9
Transportation	1	2				3
Trade	1	5	2			8
Professional service						
Domestic service	2	2	1			5
Clerical	10	12	2			24
Total	18	23	7		1	49
Total, first year	23	28	7		1	59
THIRD YEAR.						
In related trades:						
Custom clothing	1					1
Ready-made clothing	1	2				3
Boots and shoes	1	3				4
Total	3	5				8
In other occupations:						
Manufactures	3	3	3		1	10
Transportation		1	1			2
Trade	1	2	5			8
Professional service				1	1	2
Domestic service		2	1			3
Clerical	6	7	2	3		18
Total	10	15	12	4	2	43
Total, third year	13	20	12	4	2	51
FIFTH YEAR.						
In related trades:						
Custom clothing		1				1
Ready-made clothing		1				1
Boots and shoes	1	2				3
Total	1	4				5
In other occupations:						
Manufactures		1	2			3
Transportation	1			1		2
Trade		1	1			2
Professional service				1		1
Domestic service	1	1				2
Clerical	2	2	1	2		7
Total	4	5	4	4		17
Total, fifth year	5	9	4	4		22
Total, three years	41	57	23	8	3	132

---

[1] Department of Research, Women's Educational and Industrial Union: The public schools and women in office service, Ch. V.

TABLE 3[illegible].—NUMBER OF BOSTON TRADE SCHOOL GIRLS TRAINED FOR EACH OF FOUR SPECIFIED TRADES AND PER CENT EARNING EACH CLASSIFIED AMOUNT PER WEEK IN SPECIFIED OCCUPATION GROUPS AT END OF FIRST, THIRD, AND FIFTH YEARS OUT OF TRADE SCHOOL—Concluded.

END OF THIRD YEAR—Concluded.

Trade for which trained and group in which earning wages.	Number.[1]	Per cent of girls earning per week—				
		Under $6	$6 and under $8	$8 and under $10	$10 and over.	Total.
Milliners: Earning wages in—						
Own trade	50	8.0	38.0	40.0	14.0	100.0
Other needle trades	7	....	42.9	57.1	....	100.0
Other occupations	41	17.1	43.9	24.4	14.6	100.0
Total	98	11.2	40.8	34.7	13.3	100.0
Cloth machine operators: Earning wages in—						
Own trade	22	4.5	45.5	36.4	13.6	100.0
Other needle trades	5	20.0	60.0	....	20.0	100.0
Other occupations	18	27.8	38.9	27.8	5.6	100.0
Total	45	15.6	44.4	28.9	11.1	100.0
Straw machine operators: Earning wages in—						
Own trade	18	....	11.1	5.6	83.3	100.0
Other needle trades	1	....	100.0	....	....	100.0
Other occupations	14	14.3	50.0	14.3	21.4	100.0
Total	33	6.1	30.3	9.1	54.5	100.0

END OF FIFTH YEAR.

Dressmakers: Earning wages in—						
Own trade	123	1.6	22.0	46.3	30.1	100.0
Other needle trades	7	28.6	14.3	42.8	14.3	100.0
Other occupations	34	2.9	26.5	38.2	32.4	100.0
Total	164	3.0	22.6	41.5	29.9	100.0
Milliners: Earning wages in—						
Own trade	30	3.3	10.0	40.0	46.7	100.0
Other needle trades	4	....	25.0	75.0	....	100.0
Other occupations	25	....	28.0	36.0	36.0	100.0
Total	59	1.7	18.6	40.7	39.0	100.0
Cloth machine operators: Earning wages in—						
Own trade	9	11.1	11.1	44.5	33.3	100.0
Other needle trades	2	50.0	50.0	....	....	100.0
Other occupations	14	35.7	14.3	35.7	14.3	100.0
Total	25	28.0	16.0	36.0	20.0	100.0
Straw machine operators: Earning wages in—						
Own trade	9	....	....	....	100.0	100.0
Other needle trades	1	....	100.0	....	....	100.0
Other occupations	7	....	42.9	14.3	42.9	100.0
Total	17	....	23.5	5.9	70.6	100.0

[1] Not including those whose wages were not reported.

Since $8 a week has been taken as the minimum wage which makes a girl self-supporting, the attainment of that wage may be regarded as a measure of a girl's success in her trade. The attainment of a bare living wage may not be considered much of a success, but certainly the girl who does not attain it has not succeeded, and as a modest standard it may pass. Taking this as the measure, then, which fare better, the girls who remain in their own trade or who go into something else? The following summary shows the position for each group:

TABLE 68.—PER CENT OF BOSTON TRADE SCHOOL GIRLS EARNING $8 AND OVER PER WEEK IN SPECIFIED OCCUPATION GROUPS AT END OF FIRST, THIRD, AND FIFTH YEARS OUT OF TRADE SCHOOL.

Trade for which trained and occupation group.	Per cent earning $8 and over per week at end of specified year out of trade school.		
	1st year.	3d year.	5th year.
Dressmakers: Earning wages in—			
Own trade	5.4	40.9	76.4
Other needle trades	22.2	27.3	57.1
Other occupations	26.1	46.8	70.6
Milliners: Earning wages in—			
Own trade	8.4	54.0	86.7
Other needle trades	14.3	57.1	75.0
Other occupations	15.8	39.0	72.0
Cloth machine operators: Earning wages in—			
Own trade	5.9	50.0	77.8
Other needle trades	28.6	20.0	....
Other occupations	37.5	33.4	50.0
Straw machine operators: Earning wages in—			
Own trade	60.7	88.9	100.0
Other needle trades	50.0	....	....
Other occupations	....	35.7	57.2

The straw machine operators present a considerable contrast to the other three groups, since at each period those remaining in their own trade show a larger percentage earning $8 or more a week than do those who have gone into either allied trades or other occupations. In the other trades at the end of the first year those remaining in their own trade show a smaller proportion who have reached self-support than those who went into other wage-earning pursuits, but thereafter the position changes. At the end of the third year, the cloth machine operators remaining in their own trade show a considerably larger proportion in the $8 group than is found among those who have left their trade. Among the dressmakers, those who have gone into other occupations show a larger proportion earning $8 than those who have remained in their own trade, and these, in turn, show a larger proportion in this group than those who have gone into allied needle trades. By the end of the fifth year those who remained in their own trade show everywhere a larger proportion earning $8 than is found among either those who have gone into other needle trades or into other occupations. So far as this table can be taken as indicative it seems to show that while girls may in their first few years out of school do as well or even better in trades for which they have not been trained, in the long run the majority fare better by keeping to the line of work for which they have been prepared.

The table shows also that the girls who leave their own trades seem more inclined to go into something totally different than into related middle group. Thus, at the end of their first year out of school 38.7 per cent of the trade-school girls who were still working in the dressmaking trade earned less than $6 a week against 42.4 per cent of the trade-trained girls at the end of their second year. But on the other hand, 21.2 per cent of the trade-trained girls against 5.4 per cent of the trade-school girls earned $8 or over a week. Whatever advantage the trade-school girls may have in their smaller proportion in the low-wage group is lost by the end of their third and the trade-trained girls' fourth year, when the percentages earning less than $6 are, respectively, 6.1 and 2. At this period the proportion earning $8 or over is for the trade-school girls 40.9 per cent and for the trade-trained 58 per cent. In their fifth year out, 76.4 per cent of the trade-school dressmakers earned $8 or more as compared with 94.8 per cent of the trade-trained girls in their sixth year. Thirty per cent of the trade-school dressmakers earned $10 or more by the end of their fifth year, while 39.5 per cent of the trade-trained workers earned $10 or more at the end of their sixth year's experience. If the comparison be made between all members of the trade-school and the trade-trained groups, regardless of whether they remained in dressmaking or went into other pursuits, the results are much the same, though the advantage on the side of the trade-trained girl is not quite so marked.

The comparison of average wages year by year (see Tables 63 and 64, pp. 107 to 112) has shown that the trade-school group has a certain advantage over the trade-trained, but it is evident from this table that for the girls engaged in dressmaking the year spent in the trade school does not give a girl a year's advantage in wage return, except perhaps in the first year, any more than a higher initial wage seems to guarantee a continuously higher wage in succeeding years in the trade.

The number of girls trained in the trade school as cloth machine operators and the number of trade-trained workers in the factory sewing trades are much more nearly equal than are the two groups of dressmakers compared. Confining the comparison to those who remained in their trade it appears that of the trade-school girls 25.5 per cent earned less than $6 a week at the end of their first year out of school, while of the trade-trained girls 23.5 per cent were in this wage group at the end of their second year in the trade. Fifty per cent of the trade-school girls at the end of their third year and 58.8 per cent of the trade-trained girls at the end of their fourth year's experience earned $8 or more. A little more than three-fourths (77.8 per cent) of the trade-school girls earned $8 or more at the end of their fifth year, while something over four-fifths (83.4 per cent) of the trade-trained girls earned this at the end of their sixth year.

Like the study of average wages, this study of the wages, at specific periods of their working experience, of the trade-school and the trade-trained girl shows that the former has a real immediate advantage because she is lifted over the preliminary unskilled and sometimes unrelated processes, but in neither of the two important branches of the sewing trades studied here has she been able to maintain a marked wage advantage over the trade-trained girl.

FACTORS DETERMINING WAGE ADVANCEMENT.

LENGTH OF WORKING EXPERIENCE.

Of the many factors which may determine wage advancement three, maturity, length of working experience, and length of training may naturally be expected to have most weight, granting some natural capacity for the trade entered. A certain degree of maturity is requisite, and preliminary trade training is a real advantage, particularly in its immediate benefits, but length of working experience is perhaps the most important of the three in trades requiring, as the sewing trades do, (1) skill of hand which is attained through repetition of a process, and (2) a knowledge of construction. The effect of this factor is shown in the following tables giving the wage distribution, by length of industrial experience, of both the trade-school and the trade-trained girls studied.

TABLE 74.—NUMBER AND PER CENT OF BOSTON TRADE-SCHOOL GIRLS AND OF OF SPECIFIED

TRADE-SCHOOL GIRLS: NUMBER.

Present occupation.	Girls earning, after specified years' experience, each classified amount.											
	Under 3 years.						3 and under 5 years.					
	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.
In their trade:												
Dressmaking	11	63	17	2	1	94	......	15	35	11	2	63
Millinery	3	21	3	......	2	29	......	2	6	1	......	9
Machine operating on—												
Cloth	1	13	6	......	......	20	1	5	2	1	1	10
Straw hats	1	5	4	4	......	14	......	1	1	7	......	9
Cooking and design	2	[1] 1	[1] 1	......	[1] 1	5	2	......	......	[1] 1	......	3
Total	18	103	31	6	4	162	3	23	44	21	3	94
In related trades:												
Custom clothing	1	1	3	......	......	5	......	......	1	......	......	1
Ready-made clothing	3	2	2	......	......	7	1	3	......	2	......	6
Boots and shoes	2	2	2	......	1	7	......	......	1	1	......	2
Total	6	5	7	......	1	19	1	3	2	3	......	9
In other occupations:												
Manufactures	3	6	......	......	......	9	1	5	1	1	......	8
Transportation	......	3	......	1	......	4	......	2	4	2	......	8
Trade	2	5	3	......	1	11	......	3	4	......	......	7
Professional service	......	......	2	2	3	7	......	......	......	4	......	4
Domestic service	4	2	1	......	......	7	3	......	1	2	......	6
Clerical	9	12	3	......	......	24	1	2	9	3	1	16
Total	18	28	9	3	4	62	5	12	19	12	1	49
Grand total	42	136	47	9	9	243	9	38	65	36	4	152

TRADE-TRAINED GIRLS: NUMBER.

Present occupation.	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.
In their trade:												
Dressmaking	18	9	2	1	......	30	1	3	9	3	......	16
Machine operating on cloth	5	18	7	1	......	31	2	7	7	4	......	20
Total	23	27	9	2	......	61	3	10	16	7	......	36
In related trades	3	......	......	1	......	4	......	......	......	......	......	......
In other occupations	3	3	1	......	......	7	1	1	1	......	......	3
Grand total	29	30	10	3	......	72	4	11	17	7	......	39

TRADE-SCHOOL GIRLS: PER CENT EARNING EACH CLASSIFIED AMOUNT.[2]

Present occupation.	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.
In their trade:												
Dressmaking	11.8	67.7	18.3	2.2		100.0	......	24.6	57.4	18.0		100.0
Millinery	11.1	77.8	11.1	......		100.0	......	22.2	66.7	11.1		100.0
Machine operating on—												
Cloth	5.0	65.0	30.0	......		100.0	11.1	55.6	22.2	11.1		100.0
Straw hats	7.1	35.7	28.6	28.6		100.0	......	11.1	11.1	77.8		100.0
Cooking and design	50.0	[1] 25.0	[1] 25.0	......		100.0	66.7	......	......	[1] 33.3		100.0
Total	11.4	65.2	19.6	3.8		100.0	3.3	25.3	48.3	23.1		100.0
In related trades	33.3	27.8	38.9	......		100.0	11.1	33.3	22.2	33.4		100.0
In other occupations	31.0	48.3	15.5	5.2		100.0	10.4	25.0	39.6	25.0		100.0
Grand total	17.9	58.1	20.1	3.9		100.0	6.1	25.7	43.9	24.3		100.0

---

[1] Design.

[2] Not including 1 girl who is reported to be a nurse in a hospital in Philadelphia, but whose exact working experience and wage could not be obtained.

TRADE-TRAINED GIRLS EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END YEARS' EXPERIENCE.

TRADE-SCHOOL GIRLS: NUMBER.

Girls earning, after specified years' experience, each classified amount.												
5 and under 7 years.						7 years and over.						Total.
Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.	
2	2	16	23	3	46	......	......	6	11	......	17	220
......	......	2	8	......	10	......	1	1	6	......	8	56
1	......	1	3	......	5	......	......	1	1	......	2	37
......	......	......	6	......	6	......	......	......	2	......	2	31
......	......	......	......	......	......	......	......	......	......	......	......	8
3	2	19	40	3	67	......	1	8	20	......	29	352
......	2	2	......	......	4	......	......	2	......	......	2	12
......	......	3	2	......	5	......	......	1	......	......	1	19
......	......	......	......	......	......	......	......	......	......	......	......	9
......	2	5	2	......	9	......	......	3	......	......	3	40
......	1	......	1	......	2	1	3	1	......	......	5	24
......	......	......	1	......	1	......	......	......	2	......	2	15
......	......	3	......	......	3	......	......	1	1	1	3	24
......	1	......	3	1	5	......	......	......	4	......	4	20
......	1	1	......	......	2	1	......	2	3	......	6	21
......	1	8	3	......	12	......	1	5	3	1	10	62
......	4	12	8	1	25	2	4	9	13	2	30	166
3	8	36	50	4	101	2	5	20	33	2	62	[2] 558

TRADE-TRAINED GIRLS: NUMBER.

......	2	2	5	......	9	1	2	7	23	......	33	88
2	4	8	2	......	16	......	4	15	5	......	24	91
2	6	10	7	......	25	1	6	22	28	......	57	179
......	1	......	......	......	1	......	1	......	......	......	1	6
......	......	......	......	......	......	......	......	......	......	......	......	10
2	7	10	7	......	26	1	7	22	28	......	58	195

TRADE-SCHOOL GIRLS: PER CENT EARNING EACH CLASSIFIED AMOUNT.[3]

4.7	4.7	37.2	53.4		100.0	......	......	35.3	64.7		100.0	....
......	......	20.0	80.0		100.0	......	12.5	12.5	75.0		100.0	....
20.0	......	20.0	60.0		100.0	......	......	50.0	50.0		100.0	....
......	......	......	100.0		100.0	......	......	......	100.0		100.0	....
4.7	3.1	29.7	62.5		100.0	......	3.4	27.6	69.0		100.0	....
......	22.2	55.6	22.2		100.0	......	......	100.0	......		100.0	....
......	16.7	50.0	33.3		100.0	7.2	14.3	32.1	46.4		100.0	....
3.1	8.2	37.1	51.6		100.0	3.3	8.3	33.3	55.1		100.0	....

---

[3] Based on number of girls whose wages were reported.

TABLE 74.—NUMBER AND PER CENT OF BOSTON TRADE-SCHOOL GIRLS AND OF OF SPECIFIED YEARS'

TRADE-TRAINED GIRLS: PER CENT EARNING EACH CLASSIFIED AMOUNT.[1]

Present occupation.	Girls earning, after specified years' experience, each classified amount.											
	Under 3 years.						3 and under 5 years.					
	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.
In their trade:												
Dressmaking	60.0	30.0	6.7	3.3		100.0	6.3	18.7	56.3	18.7		100.0
Machine operating on cloth	16.1	58.1	22.6	3.2		100.0	10.0	35.0	35.0	20.0		100.0
Total	37.7	44.3	14.8	3.2		100.0	8.3	27.8	44.5	19.4		100.0
In other occupations	54.5	27.3	9.1	9.1		100.0	33.3	33.4	33.3	......		100.0
Grand total	40.3	41.7	13.9	4.1		100.0	10.3	28.2	43.6	17.9		100.0

[1] Based on number of girls whose wages were reported.

The effect of experience in raising the general level of wages received is very evident here. The proportion in the lower wage groups steadily sinks, and in the higher wage groups rises as the length of experience increases. Taking the trade-school girls as a whole, the proportion receiving less than $6 a week falls from 17.9 per cent among those with an industrial experience of less than three years to 3.3 per cent among those with an industrial experience of seven years or over; for the trade-trained girls the corresponding proportions are 40.3 per cent and 1.7 per cent, respectively. The proportion earning $10 or over per week rises among the trade-school girls from 3.9 per cent in the group with less than three years' experience to 55.1 per cent in the group with seven or more years of experience, and for the trade-trained girls from 4.1 per cent to 48.3 per cent. The decrease in the low-wage groups and the increase in the high-wage groups is, on the whole, continuous, although there are a few irregularities in the distribution of those with seven or more years of experience, as compared with those having five but under seven years. Thus among the trade-school cloth machine operators, 60 per cent of those with an experience of five years but under seven, and only 50 per cent of those with seven or more years of experience were earning $10 or over a week. There were, however, only five girls in the first of these groups and two in the second, so that this irregularity is negligible.

Taking $8 per week as the minimum required for self-support, it appears that for the trade-school group as a whole, among those who had been at work for less than three years not quite one-fourth were self-supporting; among those who had been working from three to five years, nearly seven-tenths had reached or passed this

TRADE-TRAINED GIRLS EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END EXPERIENCE—Concluded.

TRADE-TRAINED GIRLS: PER CENT EARNING EACH CLASSIFIED AMOUNT.[1]

Girls earning, after specified years' experience, each classified amount.												
5 and under 7 years.						7 years and over.						
Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.	Total.
......	22.2	22.2	55.6		100.0	3.0	6.1	21.2	60.7		100.0	....
12.5	25.0	50.0	12.5		100.0	....	16.7	62.5	20.8		100.0	....
8.0	24.0	40.0	28.0		100.0	1.8	10.5	38.6	49.1		100.0	....
......	100.0	....	....		100.0	....	100.0	....	....		100.0	....
7.7	26.9	38.5	26.9		100.0	1.7	12.1	37.9	48.3		100.0	....

point, and among those who had been working five years but under seven nearly nine-tenths were independent. At this point, apparently all those capable of reaching self-support have done so, for the next group, those having worked seven years or more, shows practically the same proportion earning less than $8 a week—11.6 per cent against 11.3 per cent. Among those earning $8 a week or over, however, the group with seven years of experience shows a larger proportion earning $10 or over than is found among any of the groups with less experience. Apparently, therefore, it takes about five years of working experience before the trade-school girl has certainly found herself and before it can be definitely known whether or not she can earn a living wage.

A comparison of the wages earned by the trade-school and the trade-trained girls according to their length of working experience affords an interesting contrast. Table 75 shows the percentage of trade-school and trade-trained girls in certain wage groups classified by length of experience.

Whether the comparison be made between the trade-school and the trade-trained girls as a whole, or between the trade-school and the trade-trained girls in a given trade, or those who have left their own trade for other occupations, the trade-school girls have a marked advantage. With the exception of the cloth machine operators with three but less than five years of experience, the trade-school girls in every group show a smaller proportion earning less than $8 a week and a larger proportion earning $8 or over than appears among the trade-trained girls. For those with less than three years of experience, the trade-trained girls show a larger proportion earning $10 or over; for those in the other experience groups, the advantage in this respect shifts from trade-school to trade-trained girls rather irregularly, the situation on the whole being favorable to the trade-school girls.

TABLE 75.—PER CENT OF BOSTON TRADE SCHOOL GIRLS AND OF TRADE-TRAINED GIRLS EARNING EACH CLASSIFIED WEEKLY AMOUNT AFTER SPECIFIED YEARS' EXPERIENCE.

Classified weekly earnings.	Per cent of girls earning each classified weekly amount after specified years' experience.							
	Under 3 years.		3 and under 5 years.		5 and under 7 years.		7 years and over.	
	Trade-school girls.	Trade-trained girls.	Trade-school girls.	Trade-trained girls.	Trade-school girls.	Trade-trained girls.	Trade-school girls.	Trade-trained girls.
Total workers earning—								
Under $8	76.0	82.0	31.8	38.5	11.3	34.6	11.6	13.8
$8 and over	24.0	18.0	68.2	61.5	88.7	65.4	88.4	86.2
$10 and over	3.9	4.1	24.3	17.9	51.6	26.9	55.1	48.3
Dressmakers in own trade earning—								
Under $8	79.5	90.0	24.6	25.0	9.4	22.2	....	9.1
$8 and over	20.5	10.0	75.4	75.0	90.6	77.8	100.0	90.9
$10 and over	2.2	3.3	18.0	18.7	53.4	55.6	64.7	69.7
Cloth machine operators in own trade earning—								
Under $8	70.0	74.2	66.7	45.0	20.0	37.5	....	16.7
$8 and over	30.0	25.8	33.3	55.0	80.0	62.5	100.0	83.3
$10 and over	....	3.2	11.1	20.0	60.0	12.5	50.0	20.8
Workers in other than own trade earning—								
Under $8	75.0	81.8	36.8	66.7	18.2	100.0	19.4	100.0
$8 and over	25.0	18.2	63.2	33.3	81.8	....	80.6	....
$10 and over	3.9	9.1	26.3	....	30.3	....	41.9	....

The trade-school and the trade-trained dressmakers afford perhaps the most satisfactory comparison, since their work is similar and their numbers are more nearly equal than is the case with some of the other groups. In every experience group the trade-school dressmakers show a larger proportion earning $8 a week or over. Among those having less than three years of experience, one-fifth of the trade-school against one-tenth of the trade-trained dressmakers earn $8 or more a week; among those having three but under five years of experience the proportions are almost identical for the two groups, but what advantage exists is on the side of the trade-school girl. In the next experience group nine-tenths of the trade-school against a little more than three-fourths of the trade-trained girls earn $8 or more, while in the last group, those with seven or more years of experience, nearly one-tenth of the trade-trained girls fall below $8 but not a single trade-school girl fails to earn that minimum. On the other hand, in every experience group a slightly larger proportion of the trade-trained than of the trade-school girls earn $10 or over per week. The difference here, however, is so small that it does not offset the advantage on the side of the trade-school girls in the matter of earning a living wage. When the two classes of workers are compared by length of experience, the systematic training received by the trade-school girl shows its effect in the higher level of her earnings.

It will be remembered that when the earnings at the end of specific years were compared, the trade-school girl did not show a year's advantage over the trade-trained girl in dressmaking. This comparison, however, makes it evident that her training has a very real effect upon her wage-earning capacity, and that while this effect is most apparent, as would be expected, among those who enter their own trade and remain in it, it is found also among those who go into other pursuits.

AGE AT BEGINNING WORK.

EFFECT ON WAGES OF TRADE-SCHOOL GIRLS.

Since the girl under 16 years of age is increasingly excluded from the sewing trades, and since the advocates of raising the age limits maintain that the girl entering at 16 years or more really earns a better wage, it is of interest to discover to what extent this is true in immediate as well as in later returns. For this purpose a comparison is made of the wage distribution, at the end of the first and third years out of trade school, of those beginning work under 16, between 16 and 18, and 18 and over. Reports were obtained showing wages and age at beginning work for 701 girls who were still working at the end of the first year and for 450 still working at the end of the third year. Of the group working at the end of the first year, 25 per cent had begun under 16, 53.6 per cent between 16 and 18, and 21.4 per cent aged 18 or over. Of those still working at the end of the third year, 27.1 per cent had begun under 14 years old, 53.6 per cent between 16 and 18, and 19.3 at 18 or over. The age distribution of the two groups at beginning work is, therefore, very nearly the same. Table 76 shows the wage distribution at the end of the first and of the third year.

At the end of the first year the group beginning at 18 or over shows an advantage over those beginning at 16 but under 18, and these, in turn, have an advantage over those who began under 16. The oldest group makes the best showing in wages, whether it be considered as a whole or according to its trade distribution. There are some irregularities in the latter case. Those in dressmaking and millinery show a fairly steady improvement in wage level as the age at beginning increases; among the cloth machine operators the improvement is still more regular and more marked, and it is also marked among those who have gone into other occupations; but those engaged in straw machine operating and in cooking and design do not show this steady progression. The number engaged in cooking and design, however, is too small to be significant. The straw machine operators show a very curious distribution; those beginning under 16 years of age have none in the lowest wage group, and a larger proportion receiving $8 or over than is found among any of those beginning at a higher age.

TABLE 76.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS BEGINNING WORK AT SPECIFIED AGE IN SPECIFIED OCCUPATIONS, AND EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEAR'S EXPERIENCE.

NUMBER.

Years of experience, age at beginning work, and classified weekly wages.	In trade for which trained.						In other occupations.	Total.
	Dressmaking.	Millinery.	Power-machine operating on—		Cooking and design.	Total.		
			Cloth.	Straw hats.				
END OF FIRST YEAR.								
14 and under 16 years, earning—								
Under $6	42	14	3			50	13	72
$6 and under $8	49	12	14	2	1	78	7	85
$8 and over	6			9		15	3	18
Not reported	1					1	1	2
Total	98	26	17	11	1	153	24	177
16 and under 18 years, earning—								
Under $6	76	28	8		3	115	20	135
$6 and under $8	118	29	14	13	2	176	21	197
$8 and over	8	6	1	20		35	9	44
Not reported	2	1	2		1	6	2	8
Total	204	64	25	33	6	332	52	384
18 years and over, earning—								
Under $6	27	9	2	2	1	41	3	44
$6 and under $8	43	15	7	5	1	71	7	78
$8 and over	6	4	2	5	2	19	9	28
Not reported	2			1		3	2	5
Total	78	28	11	13	4	134	21	155
Grand total	380	118	53	57	11	619	97	716
END OF THIRD YEAR.								
14 and under 16 years, earning—								
Under $6	5	1				6	4	10
$6 and under $8	32	8	4			44	17	61
$8 and over	24	8	3	4	[1] 1	40	11	51
Not reported	2					2	1	3
Total	63	17	7	4	[1] 1	92	33	125
16 and under 18 years, earning—								
Under $6	3	2	1			6	11	17
$6 and under $8	54	7	4	2	2	69	37	106
$8 and over	54	13	5	10		82	36	118
Not reported	1	1				2	5	7
Total	112	23	10	12	2	159	89	248
18 years and over, earning—								
Under $6	5	1				6	7	13
$6 and under $8	27	4	2			33	11	44
$8 and over	9	6	3	2		20	10	30
Not reported	2	1				3	2	5
Total	43	12	5	2		62	30	92
Grand total	218	52	22	18	3	313	152	465

PER CENT EARNING EACH CLASSIFIED AMOUNT.[2]

Years of experience, age at beginning work, and classified weekly wages.	Dressmaking.	Millinery.	Cloth.	Straw hats.	Cooking and design.	Total.	In other occupations.	Total.
END OF FIRST YEAR.								
14 and under 16 years, earning—								
Under $6	43.3	54.0	17.6			38.8	56.6	41.1
$6 and under $8	50.5	46.0	82.4	18.2		51.3	30.4	48.6
$8 and over	6.2			81.8	100.0	9.9	13.0	10.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Design.

[2] Based on number of girls whose wages were reported.

TABLE 76.—NUMBER AND PER CENT OF BOSTON TRADE-SCHOOL GIRLS BEGINNING WORK AT SPECIFIED AGE IN SPECIFIED OCCUPATIONS, AND EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEAR'S EXPERIENCE—Concluded.

PER CENT EARNING EACH CLASSIFIED AMOUNT—Concluded.

Years of experience, age at beginning work, and classified weekly wages	In trade for which trained.						In other occupations.	Total.
	Dressmaking.	Millinery.	Power-machine operating on—		Cooking and design.	Total.		
			Cloth.	Straw hats.				
END OF FIRST YEAR—concluded.								
16 and under 18 years, earning—								
Under $6	37.6	44.5	33.3	....	60.0	35.3	40.0	35.9
$6 and under $8	58.4	46.0	58.4	39.4	40.0	54.0	42.0	52.4
$8 and over	4.0	9.5	8.3	60.6	....	10.7	18.0	11.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18 years and over, earning—								
Under $6	35.5	32.1	18.2	16.6	25.0	31.3	15.8	29.3
$6 and under $8	56.6	53.6	63.6	41.7	25.0	54.2	36.8	52.0
$8 and over	7.9	14.3	18.2	41.7	50.0	14.5	47.4	18.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
END OF THIRD YEAR.								
14 and under 16 years, earning—								
Under $6	8.2	5.8	....	....	....	6.7	12.5	8.2
$6 and under $8	52.5	47.1	57.1	....	....	48.9	53.1	50.0
$8 and over	39.3	47.1	42.9	100.0	100.0	44.4	34.4	41.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16 and under 18 years, earning—								
Under $6	2.8	9.1	10.0	....	....	3.8	13.1	7.0
$6 and under $8	48.6	31.8	40.0	16.7	....	44.0	44.0	44.0
$8 and over	48.6	59.1	50.0	83.3	100.0	52.2	42.9	49.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18 years and over, earning—								
Under $6	12.2	9.1	....	....	....	10.1	25.0	15.0
$6 and under $8	65.9	36.4	40.0	....	....	56.0	39.3	50.6
$8 and over	21.9	54.5	60.0	100.0	....	33.9	35.7	34.4
Total	100.0	100.0	100.0	100.0	....	100.0	100.0	100.0

It seems probable that a girl entering a difficult trade like this at such an early age does not persist in it for a year unless she has either a natural aptitude for it, or an amount of energy and persistence which would be likely to bring her to the front. Those entering it at a more mature age do not require so much of these qualities to remain in it, and hence are not a picked group, as these earlier ones seem to be.

At the end of the third year those who entered between the ages of 16 and 18 show the most favorable wage distribution. This is true for the group as a whole, for those as a whole who have remained in their own trades, and for those who have entered other occupations, but when those remaining in their own trades are considered trade by trade some irregularities appear. It is true of the dressmakers and milliners, but for the cloth and straw machine operators this group makes a poorer showing than either of the others. On the whole,

the table seems to bear out the contention of those who hold that it is better for a girl not to enter her trade until she is at least 16.

EFFECT ON WAGES OF TRADE-TRAINED GIRLS.

Turning to the trade-trained girls, the following table shows that reports as to wages and age at beginning work were obtained for 187 still working at the end of the first year after entering the industrial world and for 136 working at the end of the third year. These two groups show a somewhat greater divergence in the proportions beginning work at each age than appeared between the similar groups of trade-school girls. Of those working at the end of the first year 40.6 per cent had begun under 16 years of age, 40.1 per cent at 16 but under 18, and 19.3 per cent at 18 or over. Of those working at the end of the third year, 48.5 per cent had begun work while in the youngest age group, 38.2 per cent in the second, and 13.2 per cent in the third.

TABLE 77.—NUMBER AND PER CENT OF TRADE-TRAINED GIRLS BEGINNING WORK AT SPECIFIED AGE IN SPECIFIED OCCUPATIONS AND EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEAR'S EXPERIENCE.

NUMBER.

Years of experience, age at beginning work, and classified weekly wages.	In trade for which trained.			In other occupations.	Total.
	Dressmaking.	Cloth machine operating.	Total.		
END OF FIRST YEAR.					
14 and under 16 years, earning—					
Under $6	29	13	42	13	55
$6 and under $8	4	9	13	3	16
$8 and over	1	1	2	3	5
Not reported	2	....	2	1	3
Total	36	23	59	20	79
16 and under 18 years, earning—					
Under $6	17	11	28	6	34
$6 and under $8	8	13	21	7	28
$8 and over	5	5	10	3	13
Not reported	1	1	2	....	2
Total	31	30	61	16	77
18 years and over, earning—					
Under $6	7	8	15	1	16
$6 and under $8	8	8	16	....	16
$8 and over	2	1	3	1	4
Not reported	1	....	1	....	1
Total	18	17	35	2	37
Grand total	85	70	155	[1] 38	[1] 193
END OF THIRD YEAR.					
14 and under 16 years, earning—					
Under $6	13	5	18	4	22
$6 and under $8	9	10	19	7	26
$8 and over	7	9	16	2	18
Not reported	2	....	2	....	2
Total	31	24	55	13	68

[1] Not including 1 earning $6 and under $8 whose age at beginning work was not reported.

TABLE 77.—NUMBER AND PER CENT OF TRADE-TRAINED GIRLS BEGINNING WORK AT SPECIFIED AGE IN SPECIFIED OCCUPATIONS AND EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEAR'S EXPERIENCE—Concluded.

NUMBER—Concluded.

Years of experience, age at beginning work, and classified weekly wages.	In trade for which trained.			In other occupations.	Total.
	Dress-making.	Cloth machine operating.	Total.		
END OF THIRD YEAR—concluded.					
16 and under 18 years, earning—					
Under $6	2	3	5	....	5
$6 and under $8	6	7	13	....	13
$8 and over	14	16	30	4	34
Not reported	1	1	2	....	2
Total	23	27	50	4	54
18 years and over, earning—					
Under $6	2	....	2	1	3
$6 and under $8	2	3	5	....	5
$8 and over	5	5	10	....	10
Not reported	....	....	....	....	....
Total	9	8	17	1	18
Grand total	[1] 63	59	122	18	[1] 140

PER CENT EARNING EACH CLASSIFIED AMOUNT.[2]

Years of experience, age at beginning work, and classified weekly wages.	In trade for which trained.			In other occupations.	Total.
	Dress-making.	Cloth machine operating.	Total.		
END OF FIRST YEAR.					
14 and under 16 years, earning—					
Under $6	85.3	56.6	73.7	68.4	72.4
$6 and under $8	11.8	39.1	22.8	15.8	21.0
$8 and over	2.9	4.3	3.5	15.8	6.6
Total	100.0	100.0	100.0	100.0	100.0
16 and under 18 years, earning—					
Under $6	56.7	37.9	47.5	37.5	45.3
$6 and under $8	26.7	44.8	35.6	43.8	37.4
$8 and over	16.6	17.3	16.9	18.7	17.3
Total	100.0	100.0	100.0	100.0	100.0
18 years and over, earning—					
Under $6	41.2	47.1	44.1	50.0	44.4
$6 and under $8	47.1	47.1	47.1	....	44.4
$8 and over	11.7	5.8	8.8	50.0	11.2
Total	100.0	100.0	100.0	100.0	100.0
END OF THIRD YEAR.					
14 and under 16 years, earning—					
Under $6	44.9	9.1	34.0	30.8	33.3
$6 and under $8	31.0	27.3	35.8	53.8	39.4
$8 and over	24.1	63.6	30.2	15.4	27.3
Total	100.0	100.0	100.0	100.0	100.0
16 and under 18 years, earning—					
Under $6	9.1	11.5	10.4	....	9.6
$6 and under $8	27.3	26.9	27.1	....	25.0
$8 and over	63.6	61.6	62.5	100.0	65.4
Total	100.0	100.0	100.0	100.0	100.0
18 years and over, earning—					
Under $6	22.2	....	11.8	100.0	16.7
$6 and under $8	22.2	37.5	29.4	....	27.8
$8 and over	55.6	62.5	58.8	....	55.5
Total	100.0	100.0	100.0	100.0	100.0

---

[1] Not including 1 earning $5 and under $8 whose age at beginning work was not not reported.

[2] Based on number of girls whose wages were reported.

Comparing the wage distribution at the end of the first year, those entering at 16 but under 18 years of age show a marked advantage over those entering under 16, and a less marked but still apparent advantage over those entering at over 18 or over. Those in other occupations who began work at 18 or over are an exception to this general statement, but as there are only two in this group, they are not fairly comparable with the 20 who entered under 16, and the 16 who entered at 16 but under 18. At the end of the third year, the same general situation is found. Those entering at 16 but under 18 have a more favorable wage distribution than those who entered either earlier or later. Here, again, there is one exception to the general rule: The cloth machine operators who began work at 18 or over have a better wage level than either of the other two groups in this trade. Only eight, however, began work in this age group, against 24 who began before they were 16, and 27 who began at 16 but under 18, so that the comparison is not a very satisfactory one. More emphatically even than was the case with the trade-school girls, the experience of the trade-trained girls seems to indicate that the most favorable age for entering the sewing trades is between 16 and 18 years of age. Since these trades are practically closed to the girl under 16 years of age in Massachusetts, the evidence afforded by the experience of both the trade-school and the trade-trained girls as to the best age for entering may provide some comfort to those regretting the situation.

ACADEMIC EDUCATION.

Preliminary education seemed to be an important factor in determining a girl's ability to survive in the trade school, and the selective process which went on there resulted in the formation of a really selected group from an educational standpoint, for the largest proportion were grammar-school graduates.[1] Moreover, it determines to a large extent the kind of occupation which the girl enters if she leaves her trade. In addition to the preliminary education, the year, more or less, spent in the trade school has an important influence in the girl's wage-earning career. The work done in the unspecialized public schools and the work done in the trade school are alike preparatory, and a consideration of both is necessary to make clear the relation of educational equipment and wage advancement.

WAGES OF TRADE-SCHOOL DRESSMAKERS, CLASSIFIED ACCORDING TO PREVIOUS SCHOOLING.

To simplify the combination of three factors affecting wage advancement—that is, previous schooling, length of trade training, and length of working experience—this particular discussion will be limited to the wages of trade-school dressmakers at the end of their first and third years out of trade school, considered in their relation to academic schooling. The following table shows the wages at these two periods for the trade-school dressmakers, classified by their school grade and the length of time spent in the trade school:

---

[1] See Table 6, p. 24.

TABLE 78.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL TRAINED DRESSMAKERS EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEARS AT WORK, AFTER SPECIFIED MONTHS OF ATTENDANCE AT TRADE SCHOOL, BY GRADE OF PREVIOUS SCHOOLING.

NUMBER.

Years at work, months of attendance at trade school, and classified weekly wages.	Grammar school.				High school.	Total.
	Graduates.	Nongraduates.	Unclassified.	Total.		
END OF FIRST YEAR.						
Under 6 months, earning—						
Under $6	5	2		7	4	11
$6 and under $8	3	2		5		5
$8 and over						
Not reported	1	2		3		3
Total	9	6		15	4	19
6 and under 12 months, earning—						
Under $6	28	13		41	9	50
$6 and under $8	20	10	1	31	18	49
$8 and over		1	1	2	3	5
Not reported	1			1	1	2
Total	49	24	2	75	31	106
12 and under 18 months, earning—						
Under $6	42	13	2	57	13	70
$6 and under $8	62	19	1	82	21	103
$8 and over	7	7		14	3	17
Not reported	1			1		1
Total	112	39	3	154	37	191
18 months and over, earning—						
Under $6	14	15	1	30		30
$6 and under $8	31	15		46	15	61
$8 and over	3	1		4	2	6
Not reported	2			2		2
Total	50	31	1	82	17	99
Grand total	220	100	6	326	89	415
END OF THIRD YEAR.						
Under 6 months, earning—						
Under $6						
$6 and under $8	2	2		4	2	6
$8 and over	3	1		4	1	5
Not reported	2	1		3		3
Total	7	4		11	3	14
6 and under 12 months, earning—						
Under $6	5	1		6		6
$6 and under $8	23	11		34	10	44
$8 and over	11	7	2	20	11	31
Not reported	1			1		1
Total	40	19	2	61	21	82
12 and under 18 months, earning—						
Under $6	7	1	1	9	1	10
$6 and under $8	30	12	1	43	10	53
$8 and over	31	14		45	11	56
Not reported	1	1		2		2
Total	69	28	2	99	22	121
18 months and over, earning—						
Under $6	2	1		3	1	4
$6 and under $8	21	8	1	30	6	36
$8 and over	11	7		18	2	20
Not reported	2			2		2
Total	36	16	1	53	9	62
Grand total	152	67	5	224	55	279

TABLE 78.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL TRAINED DRESSMAKERS EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEARS AT WORK, AFTER SPECIFIED MONTHS OF ATTENDANCE AT TRADE SCHOOL, BY GRADE OF PREVIOUS SCHOOLING—Concluded.

PER CENT EARNING EACH CLASSIFIED AMOUNT.[1]

Years at work, months of attendance at trade school, and classified weekly wages.	Grammar school.				High school.	Total.
	Graduates.	Nongraduates.	Unclassified.	Total.		
END OF FIRST YEAR.						
Under 6 months, earning—						
Under $6	62.5	50.0	....	58.3	100.0	68.7
$6 and under $8	37.5	50.0	....	41.7	....	31.3
$8 and over	....	....	....	....	....	....
Total	100.0	100.0	....	100.0	100.0	100.0
6 and under 12 months, earning—						
Under $6	58.3	54.2	....	55.4	30.0	48.1
$6 and under $8	41.7	41.7	50.0	41.9	60.0	47.1
$8 and over	....	4.2	50.0	2.7	10.0	4.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
12 and under 18 months, earning—						
Under $6	37.9	33.3	66.7	37.3	35.1	36.8
$6 and under $8	55.9	48.6	33.3	53.6	56.8	54.2
$8 and over	6.3	17.9	....	9.2	8.1	8.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
18 months and over, earning—						
Under $6	29.2	48.4	100.0	37.5	....	30.9
$6 and under $8	64.6	48.4	....	57.5	88.2	62.9
$8 and over	6.2	3.2	....	5.0	11.8	6.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
END OF THIRD YEAR.						
Under 6 months, earning—						
Under $6	....	....	....	....	....	....
$6 and under $8	40.0	66.7	....	50.0	66.7	54.5
$8 and over	60.0	33.3	....	50.0	33.3	45.5
Total	100.0	100.0	....	100.0	100.0	100.0
6 and under 12 months, earning—						
Under $6	12.8	5.3	....	10.0	....	7.4
$6 and under $8	59.0	57.9	....	56.7	47.6	54.3
$8 and over	28.2	36.8	100.0	33.3	52.4	38.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
12 and under 18 months, earning—						
Under $6	10.3	3.7	50.0	9.3	4.5	8.4
$6 and under $8	44.1	44.4	50.0	44.3	45.4	44.5
$8 and over	45.6	51.9	....	46.4	50.0	47.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
18 months and over, earning—						
Under $6	5.8	6.2	....	6.0	11.1	6.7
$6 and under $8	61.8	50.0	100.0	58.0	66.7	60.0
$8 and over	32.4	43.8	....	36.0	22.2	33.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

---

[1] Based on number of girls whose wages were reported.

Almost one-half (46 per cent) of the 415 girls employed at the end of the first year had attended trade school 12 months but less than 18. Almost three-fourths (71.6 per cent) had attended not less than 6 nor more than 18 months, and these girls constitute the normal or characteristic type. Of those attending trade school 6 months and less than 12, more than one-half the grammar-school pupils and less than one-third of the high-school pupils earned less than $6 at the end of their first year. Of those attending trade school 12 months but less than 18, a little more than one-third of the girls of all degrees of education, with some slight disadvantage for the grammar-school graduate, earned less than $6. No really direct or convincing evidence of relation between previous schooling and success is obvious, therefore, by the end of the first year out of trade school.

By the end of the third year wage groupings have changed considerably, and of those girls attending trade school 6 months but less than 18, which is the normal group, the high-school girl now has a somewhat more obvious advantage. One-third of the grammar-school pupils and more than one-half of the high-school pupils who attended trade school 6 months but less than 12 earned $8 or more. Forty-six (46.4) per cent of the grammar-school pupils and 50 per cent of the high-school pupils who attended trade school 12 months but less than 18 earned $8 or more. The difference in educational background seems to be of less importance on first entering the trade, for the primary demand made on the young worker is necessarily for perfection in manual skill, and all who have not this skill enter on very much the same basis. By the end of the third year, however, the girl has acquired the necessary manual skill, and then the requisite for advancement is the capacity to assume responsibility, to use judgment, to plan, to think, to adapt what she knows to new problems. The girl who is equipped with this power, whether through education or through other kinds of experience, is the one who succeeds. The large proportion of girls among those who have not graduated from grammar school who are earning the higher wages suggests that it is not previous education alone which develops this power.

WAGES OF TRADE-TRAINED DRESSMAKERS, CLASSIFIED ACCORDING TO PREVIOUS SCHOOLING.

The situation in regard to the effect of academic training upon the wage advancement of the trade-trained dressmakers differs in some respects from that just discussed among the trade-school dressmakers. The following table shows the wage grouping, at the end of the second and fourth years at work, of the trade-trained dressmakers classified according to their previous schooling.

TABLE 79.—NUMBER AND PER CENT OF TRADE-TRAINED DRESSMAKERS EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF SECOND AND FOURTH YEARS AT WORK, BY GRADE OF PREVIOUS SCHOOLING.

NUMBER.

Previous schooling.	Girls earning classified wages at end of specified year.									
	Second year.					Fourth year.				
	Under $6	$6 and under $8	$8 and over.	Not reported.	Total.	Under $6	$6 and under $8	$8 and over.	Not reported.	Total.
Grammar school:										
Graduates	20	13	4	....	37	1	11	15	....	27
Nongraduates	7	3	6	[1] 1	17	....	5	5	[2] 1	11
Unclassified	[1] 3	....	1	....	4	....	1	1	....	2
Total	30	16	11	1	58	1	17	21	1	40
High school	4	9	5	1	19	....	4	9	....	13
Uncertain schooling	....	1	1	[3] 2	4	....	1	1	[3] 2	4
Grand total	34	26	17	4	81	1	22	31	3	57

PER CENT EARNING EACH CLASSIFIED AMOUNT.[4]

Previous schooling.	Under $6	$6 and under $8	$8 and over.	Total.	Under $6	$6 and under $8	$8 and over.	Total.
Grammar school:								
Graduates	54.1	35.1	10.8	100.0	3.7	40.7	55.6	100.0
Nongraduates	43.8	18.7	37.5	100.0	....	50.0	50.0	100.0
Unclassified	75.0	....	25.0	100.0	....	50.0	50.0	100.0
Total	52.6	28.1	19.3	100.0	2.6	43.6	53.8	100.0
High school	22.2	50.0	27.8	100.0	....	30.8	69.2	100.0
Grand total	44.1	33.8	22.1	100.0	1.9	40.7	57.4	100.0

[1] One in Scotland.
[2] One in Italy.
[3] One in Russia.
[4] Based on the number of girls whose wages were reported.

Both at the end of the second and of the fourth years the high-school students have an advantage over the grammar-school girls in the matter of wages. Less than one-fourth of the high-school pupils against one-half of the grammar-school pupils earned less than $6 a week at the end of their second year. Practically seven-tenths (69.2 per cent) of the high-school pupils against 53.8 per cent of the grammar-school pupils earned $8 or more at the end of the fourth year. In this trade-trained group the previous schooling seems to have a more pronounced effect upon wages than among the trade-school girls, a fact which suggests that the trade school may play an important part in supplementing the inadequate preparation of the girls of a lower educational standard. In general, among both trade-trained and trade-school dressmakers, the girl with more preliminary education appears to have an advantage, though the comparatively small number in the trades who have gone beyond the grammar school provide small basis for conclusions.

WAGES AND LENGTH OF WORKING SEASON.

The real significance of weekly wages, however, lies in the number of weeks in the year they are received. The sewing trades for which the school trains are highly seasonal, and unemployment or irregularity of employment constitutes one of the most vigorous sifting influences. Less seasonal trades, even at a lower weekly rate, not only may provide a larger annual income, but do not subject their workers to the strain and uncertainty of irregular employment or none at all.

LENGTH OF SEASON, BY TRADES, FOR 533 TRADE-SCHOOL GIRLS.

The following table shows for 533 [1] trade-school girls employed at the time of the investigation the number of months of employment they had had during a year.

TABLE 80.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS EMPLOYED IN SPECIFIED TRADES EACH CLASSIFIED NUMBER OF MONTHS DURING A FULL YEAR.

NUMBER.[2]

Months at work during a full year.	Sewing trades.					Other trades.	Total.
	Dressmaking.	Millinery.	Power-machine operating on— Cloth.	Power-machine operating on— Straw hats.	Total.		
Under 3 months	3	3	2	1	9	6	15
3 and under 4 months	1	1	1	2	5	10	15
4 and under 5 months	2	3	....	6	11	2	13
5 and under 6 months	5	7	1	9	22	7	29
6 and under 7 months	10	5	1	4	20	8	28
7 and under 8 months	5	4	2	....	11	7	18
8 and under 9 months	39	5	1	....	45	9	54
9 and under 10 months	67	2	5	2	76	9	85
10 and under 11 months	40	6	3	3	52	11	63
11 and under 12 months	22	9	8	2	41	33	74
12 months	8	3	9	3	23	95	118
Not reported	11	2	....	....	13	8	21
Total	213	50	33	32	328	205	533

PER CENT AT WORK EACH SPECIFIED NUMBER OF MONTHS.[3]

Months at work during a full year.	Dressmaking.	Millinery.	Cloth.	Straw hats.	Total.	Other trades.	Total.
Under 3 months	1.5	6.3	6.1	3.1	2.9	3.0	2.9
3 and under 4 months	.5	2.1	3.0	6.3	1.6	5.0	2.9
4 and under 5 months	1.0	6.3	....	18.7	3.5	1.0	2.5
5 and under 6 months	2.5	14.6	3.0	28.0	7.0	3.6	5.6
6 and under 7 months	5.0	10.4	3.0	12.5	6.4	4.0	5.5
7 and under 8 months	2.5	8.1	6.1	....	3.5	3.6	3.8
8 and under 9 months	19.3	10.4	3.0	....	14.3	4.6	10.5
9 and under 10 months	33.1	4.2	15.2	6.3	24.0	4.6	16.6
10 and under 11 months	19.8	12.5	9.1	9.4	16.5	5.6	12.3
11 and under 12 months	10.9	18.8	24.2	6.3	13.0	16.7	14.5
12 months	3.9	6.3	27.3	9.4	7.3	48.2	22.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

---

[1] 26 of the 559 employed at the time of the investigation had not been out of trade school a full year.
[2] Including only those who were out of trade school a full year.
[3] Based on number of girls whose time at work during the year was reported.

The seasonal character of the sewing trades appears very plainly here. Thirty-six (36.8) per cent of those remaining in the sewing trades, against 70.5 per cent of those who had gone into other occupations worked 10 months or more—most excellent evidence as to why the girls go into other occupations. Forty per cent of the girls in the sewing trades worked 9 but less than 11 months, while 48.2 per cent of those in other occupations worked 12 months. Among the sewing trades, the millinery trades have the shortest seasons, 58.2 per cent of the custom milliners working less than nine months and 68.6 per cent of the straw machine operators not exceeding seven months. Those of the straw machine operators having longer seasons have usually been in factories which made velvet hats in the summer, and owing to this combination a few worked most of the year. Some of the milliners who worked nine months or more were employed in department stores or wholesale houses and were shifted from one department to another where most needed. More than one-half of the cloth machine operators worked 11 months or more in the factory, but for them dull seasons mean less work and smaller wages, not necessarily absolute unemployment. Among the dressmakers one-third worked 9 months but less than 10, and more than one-third (34.6 per cent) worked 10 months or more.[1]

WAGES OF TRADE-SCHOOL GIRLS TRAINED FOR SEWING TRADES, CLASSIFIED ACCORDING TO LENGTH OF WORKING SEASON AND TRADES.

Table 81 shows the wage grouping of the girls, classified according to the number of months worked.

Preceding discussions have shown that girls in the millinery trades earned higher average wages than those in the clothing trades. This table shows the same situation, but also shows how heavily these higher wages are discounted by the shorter seasons. Of the girls following their own trades, 58.8 per cent in the clothing trades against 65 per cent in the millinery trades earned $8 or more a week,[2] but 86.3 per cent in the clothing trades against 43.8 per cent in the millinery trades had a working season of eight months or more. Thirty per cent of those in the millinery trades against 9 per cent of those in the clothing trades earned $12 or over a week, but only 41.7 per cent of this wage group in the millinery trades worked 10 months or more against 61.9 per cent of those in the clothing trades. Real earnings can not be deduced with certainty from this table, since, as already mentioned, in many of the clothing trades there may be slack work and lower wages without absolute unemployment, but taking the figures of this table at their face value, those in the millinery trades can hardly be said to have much advantage over those in the clothing trades, in spite of the lower nominal wages paid in the latter.

---

[1] For further discussion, see Bul. No. 193, United States Bureau of Labor Statistics.

[2] Percentages based on the number for whom both length of season and wages are reported.

TABLE 81.—NUMBER OF BOSTON TRADE SCHOOL GIRLS TRAINED FOR SEWING TRADES EMPLOYED EACH CLASSIFIED NUMBER OF MONTHS DURING FULL YEAR, AND EARNING CLASSIFIED WAGES.

GIRLS TRAINED FOR CLOTHING TRADES.[1]

Months at work during a full year.[2]	Girls whose weekly wages were—						Total.
	Under $6	$6 and under $8	$8 and under $10	$10 and under $12	$12 and over.	Not reported.	
Working in their trade—							
Under 6 months	3	8	3			1	15
6 and under 8 months	1	8	7	2			18
8 and under 10 months	2	43	44	15	8		112
10 and under 12 months	3	21	26	12	11		73
12 months	2	5	6	1	2	1	17
Not reported	1	1	1	1	1	6	11
Total	12	86	87	31	22	8	246
Working in other occupations—							
Under 6 months	3	6	5		3	2	19
6 and under 8 months	6	1	5				12
8 and under 10 months	1	4	2		2		9
10 and under 12 months	3	13	3	2	4		25
12 months	5	14	17	8	8	3	55
Not reported	2	1	2				5
Total	20	39	34	10	17	5	125
Grand total	32	125	121	41	39	13	371

GIRLS TRAINED FOR MILLINERY TRADES.[3]

Months at work during a full year.[2]	Under $6	$6 and under $8	$8 and under $10	$10 and under $12	$12 and over.	Not reported.	Total.
Working in their trade—							
Under 6 months	2	14	6	1	9		32
6 and under 8 months		4	3	2	4		13
8 and under 10 months		3	2	3	1		9
10 and under 12 months		4	6	3	7		20
12 months		1	1	1	3		6
Not reported	1					1	2
Total	3	26	18	10	24	1	82
Working in other occupations—							
Under 6 months	1	3			1	1	6
6 and under 8 months	1	1	1				3
8 and under 10 months		2	5	2			9
10 and under 12 months	1	6	9	3			19
12 months	3	9	15	5	7	1	40
Not reported		1				2	3
Total	6	22	30	10	8	4	80
Grand total	9	48	48	20	32	5	162

---

[1] That is, custom dressmaking and cloth machine-sewing trades.

[2] The past year has been used to insure a more nearly correct statement of the length of time actually worked.

[3] That is, millinery and straw machine operating.

The girls who have gone out from their own trades seem, on the whole, to have improved their situation by doing so, when the number of weeks worked is taken into consideration. Those who have left the clothing trades show a larger proportion in both the lowest and the highest wage groups than is found among those remaining in their trade, but the percentage receiving less than $8 is slightly larger among those who have left. On the other hand those who have left have the advantage in length of working season, 67 per cent having been employed for 10 months or more against 38.2 per cent of those remaining in their trades. Among the girls who have left the millinery trades the proportion earning $8 or over is almost the same as among those who have remained in the trades, 64 per cent and 65 per cent, respectively, but those remaining in the trades show a much larger per cent earning $10 or over. The girls who have left the trades, however, have a very decided advantage in the length of working season: more than half (52 per cent) were employed for 12 months and 25.3 per cent were employed for 10 months but less than 12. Among the girls remaining in their trades these proportions were, respectively, 7.5 per cent and 25 per cent.

SUMMARY.

In summarizing this survey of the wages earned by the girls trained in the trade school, two important considerations must be kept in mind. The weekly wage reported is a nominal weekly wage decreased (1) by absence and occasional days out and (2) by seasonal fluctuation. With this in mind, it appears that an average weekly wage of $8 is reported by the end of the third year out of trade school by the girls who have used their training. The time of reaching this average varies for the different trades. Not until the fourth year did one-half or more of the dressmakers trained in the trade school, as well as of those who acquired their training in the trade, reach a weekly wage of $8 or more, but both trade-school and trade-trained workers in the cloth power-machine operating trades reached this standard in their third year. The trade-school dressmaker maintains a slight advantage over the trade-trained worker, but the power-machine operators show very similar wage returns regardless of their training. The year spent in the trade school, while undoubtedly of great advantage to the girl, can not be translated into terms of money as a year's advantage over the girl who has come up through the trade, a condition which is true of many other forms of education. The real advantage enjoyed by the trade-school girl is in her early experience—she is lifted over the unskilled, unrelated processes paying a low wage, and put at once on the processes which lead directly to advancement in skill and wage. However, the recent development of secondary-trade training must be kept in mind, and even a slight advantage should prove a stimulus to industrial educators for greater efforts and accomplishments. The regulation of the placement wage of the girls trained in the Boston Trade School during the last few years gives them an initial financial advantage but does not insure an automatic advance over that placement wage until they have developed the maturity and skill to justify advancement.

In general, the girls who remain in their trades show better wage returns than the girls who leave them for other occupations, but the shorter seasons in the sewing trades doubtless neutralize the apparent advantage. The kind of occupation entered by the girls leaving their own trades provides an interesting index to personal types and also to wage opportunities. About one-half the dressmakers and milliners leaving their trade went into clerical and professional service. Two-fifths of the dressmakers and one-tenth of the milliners went into manufactures and domestic service, which drew the majority of the cloth machine operators who had left their trades. Search for the cause of this difference reveals that the milliners rank first in educational equipment, the dressmakers second, and the power-machine operators third.

The relation of education to advancement in the sewing trades is not very obvious, perhaps because comparatively few of the workers have more than a grammar-school education. From available data, the high-school girl seems to start on much the same wage basis as the girl with less education, because the primary requisite is manual skill. By the end of the third year, however, when the opportunity for original thought and action is opened up for the girl who has the ability to utilize it, the high-school girl shows some advantage over the grammar-school graduate. The success of the grammar-school nongraduate, however, raises the question of how far the high-school girl's success may be credited to academic schooling. Comparison of the relation between schooling and the wages earned by the trade-school and the trade-trained girls seems to suggest that the trade school performs an important service in supplementing the equipment of the girl of lower educational standard, turning out a homogeneous group which shows much less variation in wages than is found in the trade-trained group.

Experience and maturity are important factors in determining wages in trades involving manual skill and "common sense," as employers term it, and the correlation between these and wages is obvious. At the time of beginning work greater maturity showed correspondingly higher wage returns, but by the end of the third year the girl beginning at 18 years or more had not maintained her precedence over the girl beginning work at 16 years. The girl beginning work under 16 years, however, is a laggard in regard to wages at the end of both the first and the third year, a fact which yields interesting support to the argument in favor of raising the present age limit for beginning work.

CHAPTER V.—INDUSTRIAL EXPERIENCE AND WAGES OF WORCESTER AND CAMBRIDGE TRADE-SCHOOL GIRLS.

WORCESTER GIRLS' TRADE SCHOOL.

Since the Worcester Trade School was not established till September, 1911, and since its course requires two years for completion, the working experience of its pupils at the time of the investigation (February-March, 1915) was necessarily too short to throw much light on their industrial efficiency. The study of the Worcester Trade School, therefore, is valuable chiefly because of the school's peculiar problems and its method of solving them; for Worcester has established a trade school to train girls primarily for the custom sewing trades, and yet, so far as trade opportunities for any large number of girls are concerned, these trades are practically nonexistent in the city. Moreover, this is a situation likely to confront the new trade schools established in practically any medium-sized city. The Worcester school, taking the general plan of a trade school established to meet the needs of a particular large city, has striven to adjust it to the local needs of a community with very different conditions and trade opportunities. Its effort to make this adjustment is the chief matter of interest in the school's history.

AGE AND INDUSTRIAL DISTRIBUTION OF GIRLS STUDIED.

At the time of the investigation, 166 pupils of the Worcester Trade School had either made use of their trade, or had attended the school for at least nine months, although after leaving it they had not used their trade. The following table shows the age distribution of these girls, classified as to whether or not they were earning wages, and if they were, whether in their own trade or in some other occupation:

TABLE 82.—NUMBER AND PER CENT IN SPECIFIED AGE GROUPS AMONG WORCESTER TRADE SCHOOL GIRLS WHO WERE EARNING AND NOT EARNING WAGES.

Age group.	Number and per cent in specified age groups of girls who were –							
	Earning wages in their own trades.		Earning wages in other occupations.		Not earning wages.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	4	6.5	2	3.5	6	12.8	12	7.2
16 and under 18 years	23	37.1	25	43.9	22	46.8	70	42.2
18 and under 20 years	25	40.3	20	35.1	17	36.2	62	37.3
20 years and over	10	16.1	10	17.5	2	4.3	22	13.3
Total	62	100.0	57	100.0	47	100.0	166	100.0

TABLE 79.—NUMBER AND PER CENT OF TRADE-TRAINED DRESSMAKERS EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF SECOND AND FOURTH YEARS AT WORK, BY GRADE OF PREVIOUS SCHOOLING.

NUMBER.

Previous schooling.	Girls earning classified wages at end of specified year.									
	Second year.					Fourth year.				
	Under $6	$6 and under $8	$8 and over.	Not reported.	Total.	Under $6	$6 and under $8	$8 and over.	Not reported.	Total.
Grammar school:										
Graduates	20	13	4	......	37	1	11	15	......	27
Nongraduates	7	3	6	[1] 1	17	......	5	5	[2] 1	11
Unclassified	[1] 3	......	1	......	4	......	1	1	......	2
Total	30	16	11	1	58	1	17	21	1	40
High school	4	9	5	1	19	......	4	9	......	13
Uncertain schooling	......	1	1	[3] 2	4	......	1	1	[3] 2	4
Grand total	34	26	17	4	81	1	22	31	3	57

PER CENT EARNING EACH CLASSIFIED AMOUNT.[4]

Previous schooling.	Under $6	$6 and under $8	$8 and over.	Total.	Under $6	$6 and under $8	$8 and over.	Total.
Grammar school:								
Graduates	54.1	35.1	10.8	100.0	3.7	40.7	55.6	100.0
Nongraduates	43.8	18.7	37.5	100.0	......	50.0	50.0	100.0
Unclassified	75.0	......	25.0	100.0	......	50.0	50.0	100.0
Total	52.6	28.1	19.3	100.0	2.6	43.6	53.8	100.0
High school	22.2	50.0	27.8	100.0	......	30.8	69.2	100.0
Grand total	44.1	33.8	22.1	100.0	1.9	40.7	57.4	100.0

[1] One in Scotland.
[2] One in Italy.
[3] One in Russia.
[4] Based on the number of girls whose wages were reported.

Both at the end of the second and of the fourth years the high-school students have an advantage over the grammar-school girls in the matter of wages. Less than one-fourth of the high-school pupils against one-half of the grammar-school pupils earned less than $6 a week at the end of their second year. Practically seven-tenths (69.2 per cent) of the high-school pupils against 53.8 per cent of the grammar-school pupils earned $8 or more at the end of the fourth year. In this trade-trained group the previous schooling seems to have a more pronounced effect upon wages than among the trade-school girls, a fact which suggests that the trade school may play an important part in supplementing the inadequate preparation of the girls of a lower educational standard. In general, among both trade-trained and trade-school dressmakers, the girl with more preliminary education appears to have an advantage, though the comparatively small number in the trades who have gone beyond the grammar school provide small basis for conclusions.

WAGES AND LENGTH OF WORKING SEASON.

The real significance of weekly wages, however, lies in the number of weeks in the year they are received. The sewing trades for which the school trains are highly seasonal, and unemployment or irregularity of employment constitutes one of the most vigorous sifting influences. Less seasonal trades, even at a lower weekly rate, not only may provide a larger annual income, but do not subject their workers to the strain and uncertainty of irregular employment or none at all.

LENGTH OF SEASON, BY TRADES, FOR 533 TRADE-SCHOOL GIRLS.

The following table shows for 533 [1] trade-school girls employed at the time of the investigation the number of months of employment they had had during a year.

TABLE 80.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS EMPLOYED IN SPECIFIED TRADES EACH CLASSIFIED NUMBER OF MONTHS DURING A FULL YEAR.

NUMBER.[2]

Months at work during a full year.	Sewing trades.					Other trades.	Total.
	Dress-making.	Milli-nery.	Power-machine operating on—		Total.		
			Cloth.	Straw hats.			
Under 3 months	3	3	2	1	9	6	15
3 and under 4 months	1	1	1	2	5	10	15
4 and under 5 months	2	3	....	6	11	2	13
5 and under 6 months	5	7	1	9	22	7	29
6 and under 7 months	10	5	1	4	20	8	28
7 and under 8 months	5	4	2	....	11	7	18
8 and under 9 months	39	5	1	....	45	9	54
9 and under 10 months	67	2	5	2	76	9	85
10 and under 11 months	40	6	3	3	52	11	63
11 and under 12 months	22	9	8	2	41	33	74
12 months	8	3	9	3	23	95	118
Not reported	11	2	....	....	13	8	21
Total	213	50	33	32	328	205	533

PER CENT AT WORK EACH SPECIFIED NUMBER OF MONTHS.[3]

Under 3 months	1.5	6.3	6.1	3.1	2.9	3.0	2.9
3 and under 4 months	.5	2.1	3.0	6.3	1.6	5.0	2.9
4 and under 5 months	1.0	6.3	....	18.7	3.5	1.0	2.5
5 and under 6 months	2.5	14.6	3.0	28.0	7.0	3.6	5.6
6 and under 7 months	5.0	10.4	3.0	12.5	6.4	4.0	5.5
7 and under 8 months	2.5	8.1	6.1	....	3.5	3.6	3.8
8 and under 9 months	19.3	10.4	3.0	....	14.3	4.6	10.5
9 and under 10 months	33.1	4.2	15.2	6.3	24.0	4.6	16.6
10 and under 11 months	19.8	12.5	9.1	9.4	16.5	5.6	12.3
11 and under 12 months	10.9	18.8	24.2	6.3	13.0	16.7	14.5
12 months	3.9	6.3	27.3	9.4	7.3	48.2	22.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

---

[1] 26 of the 559 employed at the time of the investigation had not been out of trade school a full year.

[2] Including only those who were out of trade school a full year.

[3] Based on number of girls whose time at work during the year was reported.

First, the previous classes have practically supplied the demand for young workers in the custom trades, and, second, the factory sewing trades, which in Worcester are mostly the manufacture of corsets and underwear, had at the time of this investigation been suffering severe industrial depression for several years. As the girls grow older, new opportunities become available, and a decreasing proportion is found at home. Marriage has scarcely affected the situation, only three girls having been married at the time of the investigation.

Some variation is found within the different trades in the utilization of the training in a wage-earning capacity. The following table shows the distribution at specified times after leaving the trade school of the girls trained for the different trades:

TABLE 84.—NUMBER AND PER CENT OF WORCESTER TRADE SCHOOL GIRLS TRAINED FOR THE SEWING TRADES WHO WERE EARNING AND NOT EARNING WAGES WHEN OUT OF SCHOOL EACH SPECIFIED LENGTH OF TIME.

DRESSMAKING.

Length of time out of trade school.	Number.					Per cent earning and not earning wages.			
	Grand total.	Earning wages.			Not earning wages.	Earning wages.			Not earning wages.
		Total.	In their trade.	In other occupations.		Total	In their trade.	In other occupations.	
At first leaving	108	70	46	24	38	64.8	42.6	22.2	35.2
At end of—									
First year	108	67	34	33	41	62.0	31.5	30.5	38.0
Second year	44	37	16	21	7	84.1	36.4	47.7	15.9
Third year	10	9	4	5	1	90.0	40.0	50.0	10.0

MILLINERY.

Length of time out of trade school.	Grand total.	Total.	In their trade.	In other occupations.	Not earning wages.	Total	In their trade.	In other occupations.	Not earning wages.
At first leaving	29	28	18	10	1	96.6	62.1	34.5	3.4
At end of—									
First year	29	26	15	11	3	89.7	51.7	38.0	10.3
Second year	20	18	7	11	2	90.0	35.0	55.0	10.0
Third year	4	4	....	4	....	100.0	....	100.0	....

CLOTH MACHINE OPERATING.

Length of time out of trade school.	Grand total.	Total.	In their trade.	In other occupations.	Not earning wages.	Total	In their trade.	In other occupations.	Not earning wages.
At first leaving	29	28	20	8	1	96.6	69.0	27.6	3.4
At end of—									
First year	29	26	17	9	3	89.7	58.6	31.0	10.3
Second year	21	18	13	5	3	85.7	61.9	23.8	14.3
Third year	6	5	4	1	1	83.3	66.6	16.7	16.7

Nearly two-thirds (65.1 per cent) of these girls had been trained for dressmaking, and in this group were found the smallest proportions utilizing their training, for the trade can not assimilate such a large number of young, partially equipped workers. The power-machine operators show the largest proportion entering their trade on leaving school, more than two-thirds doing so, as against over two-fifths of the dressmakers, and over three-fifths of the milliners.

At the end of the first year after leaving school, less than one-third of the dressmakers, over one-half of the milliners, and less than three-fifths of the power-machine operators were still in their trade. The dressmakers and the power-machine operators who had been out of school as much as two years both showed a larger proportion working in their own trade at the end of the second year after leaving school than were working at the end of the first year, while the milliners showed a much smaller proportion. Of the girls who had been out of school three years, the dressmakers and power-machine operators showed a still larger proportion in their own trades at the end of the third year, while there were none of the milliners working in their trade. The fact that none of the milliners had continued in their trade seems due to two causes, the seasonal character of the trade and the small opportunity it offers for steady workers. The young girls just leaving trade school sometimes displace the girls who have been out in the trade for a year or two, because in the shops of a small city the employer does most of the skilled work, and the young girl who can do the simple processes nearly as well as the girl who has been at them for a year or two will work for smaller wages. As only four milliners had been out for three years, much significance can not be attached to this showing.

LENGTH OF WORKING EXPERIENCE AND EMPLOYMENT.

When the length of working experience is considered instead of length of time out of trade school, the situation does not change essentially. According to the time they had been at work the 133 girls who had worked at all were, at the time of the investigation, distributed as follows:

TABLE 85.—NUMBER AND PER CENT OF WORCESTER TRADE SCHOOL GIRLS WITH SPECIFIED EXPERIENCE WHO WERE EARNING AND NOT EARNING WAGES.

Length of experience.	Total.	Earning wages in their own trade.		Earning wages in other occupations.		Not earning wages.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 1 year	60	24	40.0	24	40.0	12	20.0
1 and under 2 years	51	27	52.9	22	43.1	2	3.9
2 years and over	22	11	50.0	11	50.0	....	....
Total	133	62	46.6	57	42.9	14	10.5

Among those who had worked less than one year, precisely half of those earning wages were in their own trade and half in other occupations, and exactly the same division was found among those who had worked for two years or more. Those working one and under two years show a larger proportion in their own trade than in other occupations. The real difference which length of experience brings seems to lie in the proportion unemployed; the longer the working experience the smaller is the proportion not at work.

AGE AND EMPLOYMENT.

Maturity, as has been suggested, is of great importance in determining the girl's ability to secure employment, since in Worcester the number of places in the custom sewing trades open to young girls is strictly limited. At the time of the investigation the industrial distribution, by age, of the whole group of 166 girls was as follows:

TABLE 86.—NUMBER AND PER CENT OF WORCESTER TRADE SCHOOL GIRLS OF SPECIFIED AGE WHO WERE EARNING AND NOT EARNING WAGES.

Age group.	Total.	Earning wages in own trades.		Earning wages in other occupations.		Not earning wages.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16	12	4	33.3	2	16.7	6	50.0
16 and under 18 years	70	23	32.9	25	35.7	22	31.4
18 and under 20 years	62	25	40.3	20	32.3	17	27.4
20 years and over	22	10	45.5	10	45.5	2	9.0
Total	166	62	37.4	57	34.3	47	28.3

The increase in the proportion employed as age increases is shown strikingly here. One-half of the 12 girls under 16 years of age, two-thirds of the 70 girls of 16 and under 18 years, and over three-fourths of the 84 girls aged 18 and over were working for wages. About equal proportions of the girls who were earning wages were in the trades for which they were trained and in other occupations. The proportion not working for wages decreases from one-half in the youngest group to less than one-tenth in the group aged 20 and over, a fact which shows clearly the importance of maturity in securing employment in Worcester.

REASONS FOR NOT USING TRADE.

Because of the different trade conditions in the two cities, the reasons given by the girls from the Worcester Trade School show a greater emphasis on industrial conditions than was the case among the girls from the Boston Trade School. Table 87 gives the reasons assigned by the 72 Worcester girls who had never used their trade training for their failure to do so.

Thirty-nine per cent of the Worcester girls, against 32 per cent of the Boston girls, failed to use their trade because of trade conditions; in the group giving this reason the two cities show almost the same proportion assigning their own or their parents' dislike to the trade, but Worcester shows much the larger proportion who were unable to get a job. The proportion who did not use their trade training because of home demands is practically the same in the two cities—

in Worcester 27.8 per cent and in Boston 26 per cent. Lack of personal adjustment was a more important cause in Boston than in Worcester, accounting for 28 per cent of the Boston group as against 19.4 per cent of the Worcester girls, and physical incapacity accounted for 13 per cent in Boston as against 5.5 per cent in Worcester.

Of the 33 girls who left their trade after having entered it, by far the largest proportion, 25, or 75.8 per cent, gave trade conditions as their reason for doing so. Five, or 15.2 per cent, left on account of domestic reasons, and only 3, or 9 per cent, because of physical incapacity or lack of adjustment to the work.

TABLE 87.—NUMBER AND PER CENT OF WORCESTER TRADE SCHOOL GIRLS GIVING EACH SPECIFIED REASON FOR NEVER USING THEIR TRADES.

Reason for never using trade.	Number.				Per cent.
	Dressmaking.	Millinery.	Cloth machine operating.	Total.	
Lack of adjustment:					
Not successful in school	2	1	....	3	4.2
Did not learn enough	6	2	1	9	12.5
Unstable	2	....	....	2	2.8
Total	10	3	1	14	19.4
Physical incapacity	1	1	2	4	5.5
Trade conditions:					
Dislike of work by parents or girl	10	....	2	12	16.7
Unable to get position	6	2	....	8	11.1
Dull seasons	1	....	....	1	1.4
"Got another job"	3	2	1	6	8.3
Too far from home	1	....	....	1	1.4
Total	21	4	3	28	38.9
Advancement (school)	6	....	....	6	8.3
Domestic reasons:					
No need to work	1	....	....	1	1.4
Needed at home	17	....	....	17	23.6
Married	1	....	....	1	1.4
Economic pressure	1	....	....	1	1.4
Total	20	....	....	20	27.8
Grand total	58	8	6	72	100.0

AVERAGE WAGES AT SPECIFIED PERIODS.

Wages in the sewing trades are lower in Worcester than in Boston, so the wages of the trade-school girls in the two cities can not be used as a test of their comparative efficiency. The test of success should be advancement in wage and the ability to continue in the trade when once placed. Table 88 shows for the Worcester girls the average wages on first entering the trade and at the end of each year after leaving school.

TABLE 88.—NUMBER AND AVERAGE WEEKLY WAGES OF WORCESTER TRADE SCHOOL GIRLS IN THEIR OWN TRADES AND IN OTHER OCCUPATIONS WHEN OUT OF SCHOOL EACH SPECIFIED LENGTH OF TIME.

IN THEIR OWN TRADE.[1]

Length of time out of trade school.	Dressmaking.		Millinery.		Cloth machine operating.		Total.	Average weekly wage.
	Number.	Average weekly wage.	Number.	Average weekly wage.	Number.	Average weekly wage.		
At first leaving	46	$4.48	18	$4.53	20	$3.92	84	$4.36
At end of—								
First year	32	5.48	15	5.70	17	6.14	64	5.71
Second year	15	7.03	7	6.79	13	6.87	35	6.92
Third year	4	8.19	1	6.00	3	6.83	8	7.41

IN OTHER OCCUPATIONS.[1]

Length of time out of trade school.	Dressmaking.		Millinery.		Cloth machine operating.		Total.	Average weekly wage.
	Number.	Average weekly wage.	Number.	Average weekly wage.	Number.	Average weekly wage.		
At first leaving	24	$4.48	10	$4.53	8	$3.92	42	$4.53
At end of—								
First year	31	5.48	11	5.70	9	6.14	51	5.65
Second year	21	7.03	10	6.79	5	6.87	36	6.66
Third year	5	8.19	3	6.00	2	6.83	10	5.79

[1] Not including girls whose wages were not reported.

In Worcester, as in Boston, the cloth power-machine operator gets the lowest initial wage, but in Worcester this wage falls somewhat further below the average for the whole group than it does in Boston. This is probably due to the difficulty of the power-machine sewing done in the corset factories, where most of them have been placed. The young untrained worker in dressmaking or millinery begins on unskilled hand processes either at a fixed weekly rate, or if on piece rates, on work sufficiently simple to enable her to earn a higher wage than the young inexperienced machine operator. When, however, the young machine operator has become accustomed to her work and has developed her speed she is likely to outstrip the girls working on hand processes. The average wage of the 17 trade-school girls in power-machine operating at the end of their first year out of school was $6.14, an increase of 56.6 per cent over the average wage of the 20 girls at the time of leaving school, and the average wage at the end of their second year of the 13 girls out of school as long as two years was $6.87, an increase of 11.9 per cent over the average wage of the 17 girls at the end of the first year. The average wages of the dressmakers, beginning with a higher initial wage, showed for the end of the first year an increase of 22.3 per cent, not quite half of the increase gained by the power-machine operators. For the end of the second year, however, the average wages of the 15 dressmakers showed an increase over the average wages of the 32 dressmakers at the end of the first year of 28.3 per cent, and the four still in this trade at the end of their third year were earning average wages of

$8.19 a week, a higher average than was shown by the few girls still in either of the other trades, whereas in Boston at the end of the third year the average wages of both the milliners and the cloth-machine operators were higher than those of the dressmakers. The average wage of the dressmakers in Worcester, however, is large because three girls were able to do independent dressmaking at which they earned from $2 to $2.50 a day. They maintained that they had all the work they could do. One of these girls was 17 years old when she began work, and the other two were 18, their age at beginning work thus being higher than for most of the girls. Their success illustrates the opportunity for a very limited number of dressmakers in Worcester.

The girls who went into occupations other than the trade for which they had been trained showed a higher initial wage than those following their trades—$4.53 against $4.36—but thereafter the wages of the girls in the sewing trades were, on the whole, higher.

CLASSIFIED WAGES AT SPECIFIED PERIODS.

A study of the classified wages of the girls from the Worcester Trade School adds little to the knowledge of the situation, owing to the very small numbers in the different wage groups. Nevertheless, the classified wages for those remaining in each trade and for those leaving each trade are given for the sake of completeness in Table 89.

WAGES AND OCCUPATIONS AT SPECIFIED PERIODS.

Table 90 shows the wages and occupations of girls from the Worcester Trade School when out of school each specified length of time.

In considering the advancement of the Worcester girls a wage of $6 a week has been taken as the standard of comparison instead of $8, the basis of comparison in Boston. This difference is considered fair, because of the immaturity and short working experience, as compared with the Boston girls, of the majority of the Worcester girls. By this standard the girls trained for millinery made the best showing, not only on entering the trade, but also at the end of the first and second years after leaving school. Less than one-fifth of the 46 dressmakers earned $6 or more on leaving the trade school, but at the end of the first year two-fifths of the 34 dressmakers out of school one year and at the end of the second year four-fifths of the 16 dressmakers who had been out of school as long as two years had reached that wage. Less than one-sixth of the 20 power-machine operators earned $6 or more on first leaving school, while almost one-half of the 17 power-machine operators out of school one year at the end of the first year, and more than two-thirds of the 13 power-machine operators out of school as long as two years at the end of the second year earned that amount. But more than one-fourth of the 18 milliners earned $6 or more on first leaving, two-thirds of the 15 milliners out of school one year at the end of the first year, and all of the 7 milliners out of school as long as two years at the end of the second year earned $6 or over. The short seasons in this trade, however, diminish this apparent advantage.

TABLE 89.—NUMBER OF WORCESTER TRADE SCHOOL GIRLS TRAINED FOR SEWING TRADES WHO RECEIVED SPECIFIED WEEKLY WAGES IN THEIR OWN TRADES OR IN OTHER OCCUPATIONS WHEN OUT OF SCHOOL EACH SPECIFIED LENGTH OF TIME.

DRESSMAKING.

Classified weekly wages.	Number.							
	In their own trades.				In other occupations.			
	At first leaving.	At end of first year.	At end of second year.	At end of third year.	At first leaving.	At end of first year.	At end of second year.	At end of third year.
Under $3	8	4			2	1		
$3 and under $4	9	3	1	1	5	3	1	
$4 and under $5	8	4			5	1	4	1
$5 and under $6	13	8	2		5	10	2	1
$6 and under $7	5	9	9	1	4	8	7	1
$7 and under $8					2	5	3	
$8 and over	3	4	3	2	1	3	4	2
Not reported		2	1			1		
Total	46	34	16	4	24	32	21	5
MILLINERY.								
Under $3	1				2			
$3 and under $4	3	2			1			
$4 and under $5	6	2			2	2	1	1
$5 and under $6	3	1			2		1	1
$6 and under $7	5	7	3	1	2	7	4	1
$7 and under $8		1	3					
$8 and over		2	1		1	2	4	
Not reported							1	
Total	18	15	7	1	10	11	11	3
CLOTH MACHINE OPERATING.								
Under $3	5					2		
$3 and under $4	3	1			3	1		1
$4 and under $5	4	2	1		1			
$5 and under $6	5	6	3		1	1	1	
$6 and under $7	3	2	3	2	1	3	2	
$7 and under $8		1	2		1	2		1
$8 and over		5	4	1			2	
Not reported					1			
Total	20	17	13	3	8	9	5	2
Grand total	84	66	36	8	42	52	37	10

TABLE 90.—OCCUPATIONS AND WEEKLY WAGES OF WORCESTER TRADE SCHOOL GIRLS TRAINED FOR THE SEWING TRADES WHEN OUT OF SCHOOL EACH SPECIFIED LENGTH OF TIME.

AT FIRST LEAVING SCHOOL.

Occupation.	Girls trained for—												Grand total.
	Dressmaking.				Millinery.				Cloth machine operating.				
	Under $6	$6 and over.	Total.		Under $6	$6 and over.	Total.		Under $6	$6 and over.	Total.		
			Number.	Per cent in each occupation.			Number.	Per cent in each occupation.			Number.	Per cent in each occupation.	
Sewing trades	38	8	46	65.7	13	5	18	64.3	17	3	20	71.4	81
Related trades	3	......	3	4.3	2	......	2	7.1	1	......	1	8.6	6
Other occupations:													
Manufactures	9	......	9	12.9	1	......	1	3.6	......	1	1	3.6	11
Trade, transportation, clerical work	3	4	7	10.0	2	2	4	14.3	2	......	[1] 3	10.7	[1] 14
Domestic service	2	3	5	7.1	2	1	3	10.7	2	1	3	10.7	11
Total	11	7	21	30.0	5	3	8	28.6	4	2	[1] 7	25.0	[1] 36
Grand total	55	15	70	100.0	20	8	28	100.0	22	5	[1] 28	100.0	[1] 126

AT END OF FIRST YEAR.

Occupation.	Dressmaking: Under $6	$6 and over.	Number.	Per cent in each occupation.	Millinery: Under $6	$6 and over.	Number.	Per cent in each occupation.	Cloth machine operating: Under $6	$6 and over.	Number.	Per cent in each occupation.	Grand total.
Sewing trades	19	13	[1] 34	51.5	5	10	15	57.7	9	8	17	65.4	[2] 66
Related trades	3	2	[1] 6	9.1	1	1	2	7.7	......	1	1	3.8	[1] 9
Other occupations:													
Manufactures	3	3	6	9.1	......	2	2	7.7	......	1	1	3.8	9
Trade, transportation, clerical work	5	6	11	16.7	......	5	5	19.2	4	3	7	27.0	23
Domestic service	4	5	9	13.6	1	1	2	7.7	......	......	......	......	11
Total	12	14	26	39.4	1	8	9	34.6	4	4	8	30.8	43
Grand total	34	29	[2] 66	100.0	7	19	26	100.0	13	13	26	100.0	[3] 118

AT END OF SECOND YEAR.

Occupation.	Dressmaking: Under $6	$6 and over.	Number.	Per cent in each occupation.	Millinery: Under $6	$6 and over.	Number.	Per cent in each occupation.	Cloth machine operating: Under $6	$6 and over.	Number.	Per cent in each occupation.	Grand total.
Sewing trades	3	12	[1] 16	43.2	......	7	7	38.9	4	9	13	72.2	[1] 36
Related trades	......	4	4	10.8	1	......	1	5.6	......	......	......	......	5
Other occupations:													
Manufactures	2	1	3	8.1	......	1	1	5.6	1	2	3	16.7	7
Trade, transportation, clerical work	5	6	11	29.7	2	5	[1] 8	44.4	......	2	2	11.1	21
Domestic service	......	3	3	8.1	......	1	1	5.6	......	......	......	......	4
Total	7	10	17	45.9	2	7	[1] 10	55.6	1	4	5	27.8	32
Grand total	10	26	[1] 37	100.0	3	11	[1] 18	100.0	5	13	18	100.0	[1] 73

[1] Including 1, wages not reported.
[2] Including 2, wages not reported.
[3] Including 3, wages not reported.

CHAPTER V.—INDUSTRIAL EXPERIENCE AND WAGES OF WORCESTER AND CAMBRIDGE TRADE-SCHOOL GIRLS.

WORCESTER GIRLS' TRADE SCHOOL.

Since the Worcester Trade School was not established till September, 1911, and since its course requires two years for completion, the working experience of its pupils at the time of the investigation (February-March, 1915) was necessarily too short to throw much light on their industrial efficiency. The study of the Worcester Trade School, therefore, is valuable chiefly because of the school's peculiar problems and its method of solving them; for Worcester has established a trade school to train girls primarily for the custom sewing trades, and yet, so far as trade opportunities for any large number of girls are concerned, these trades are practically non-existent in the city. Moreover, this is a situation likely to confront the new trade schools established in practically any medium-sized city. The Worcester school, taking the general plan of a trade school established to meet the needs of a particular large city, has striven to adjust it to the local needs of a community with very different conditions and trade opportunities. Its effort to make this adjustment is the chief matter of interest in the school's history.

AGE AND INDUSTRIAL DISTRIBUTION OF GIRLS STUDIED.

At the time of the investigation, 166 pupils of the Worcester Trade School had either made use of their trade, or had attended the school for at least nine months, although after leaving it they had not used their trade. The following table shows the age distribution of these girls, classified as to whether or not they were earning wages, and if they were, whether in their own trade or in some other occupation:

TABLE 82.—NUMBER AND PER CENT IN SPECIFIED AGE GROUPS AMONG WORCESTER TRADE SCHOOL GIRLS WHO WERE EARNING AND NOT EARNING WAGES.

Age group.	Number and per cent in specified age groups of girls who were—							
	Earning wages in their own trades.		Earning wages in other occupations.		Not earning wages.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	4	6.5	2	3.5	6	12.8	12	7.2
16 and under 18 years	23	37.1	25	43.9	22	46.8	70	42.2
18 and under 20 years	25	40.3	20	35.1	17	36.2	62	37.3
20 years and over	10	16.1	10	17.5	2	4.3	22	13.3
Total	62	100.0	57	100.0	47	100.0	166	100.0

trades, this irregularity does not appear; among them the proportion in the $8 a week group steadily increases and the proportion in the $6 a week group steadily decreases as time goes on.

AGE AT BEGINNING WORK.

Maturity at the time of beginning work is also an important factor in determining wage advancement. More than four-fifths of those beginning work under 18 years of age earned less than $6 a week against one-half of those who began at 18 or over. By the end of the first year almost one-half (45.2 per cent) of those beginning work under 16 years of age, more than one-half (55.2 per cent) of those beginning between 16 and 18 years, and two-thirds (67.9 per cent) of those beginning at 18 years or over earned $6 or more a week. By the end of the second year the girls beginning at 16 but under 18 had the advantage over the girls beginning at 14 or 15 years old, 82.9 per cent of the former and only 57.9 per cent of the latter earning $6 or more, but the girls beginning at 18 or over had not maintained their precedence, 82.4 per cent earning $6 or more. In Boston, also, the girl beginning at 18 years or over did not maintain her advantage over the girl beginning at 16.

TABLE 92.—NUMBER AND PER CENT OF WORCESTER TRADE SCHOOL GIRLS IN DIFFERENT WAGE GROUPS, CLASSIFIED BY AGE AND PREVIOUS SCHOOLING.

Previous schooling.	Number earning each specified wage.									Per cent earning each specified wage.[1]			
	Under 18 years of age.				18 years of age and over.				Grand total.	Under 18 years of age.		18 years of age and over.	
	Under $6	$6 and over.	Not reported.	Total.	Under $6	$6 and over.	Not reported.	Total.		Under $6	$6 and over.	Under $6	$6 and over.
Grammar school:													
Graduates	16	5	1	22	4	12	2	18	40	76.2	23.8	32.2	67.8
Nongraduates	10	10	......	20	5	11	1	17	37	50.0	50.0	25.0	75.0
Total	26	15	1	42	9	23	3	35	77	63.4	36.6	28.1	71.9
High school	6	6	......	12	6	24	......	30	42	50.0	50.0	23.3	76.7
Grand total	32	21	1	54	15	47	3	65	119	60.4	39.6	25.8	74.2

[1] Based on number of girls whose wages were reported.

ACADEMIC AND TRADE-SCHOOL TRAINING.

In the study of the Boston Trade School girls it appeared that the girls with a high-school education had some advantage over those who had not gone so far, and that length of trade training tended to increase earning capacity. The number studied in Worcester was so small that it is practically impossible to classify them by these two standards without ignoring the classification by length of working experi-

TABLE 83.—NUMBER AND PER CENT OF GIRLS TRAINED IN THE WORCESTER TRADE SCHOOL EARNING AND NOT EARNING WAGES WHEN OUT OF TRADE SCHOOL EACH SPECIFIED LENGTH OF TIME.

Length of time out of trade school.	Number.							Per cent earning and not earning wages.			
	Grand total.	Earning wages.			Not earning wages.			Earning wages.			Not earning wages.
		Total.	In their own trades.	In other occupations.	Total.	Married.	At home.	Total.	In their own trades	In other occupations.	
At first leaving	166	126	84	42	40	....	40	75.9	50.6	25.3	24.1
At end of—											
First year	166	118	66	52	48	2	46	71.1	39.8	31.3	28.9
Second year	86	73	36	37	13	....	13	84.9	41.9	43.0	15.1
Third year	20	18	8	10	2	1	1	90.0	40.0	50.0	10.0

The proportions employed in their own trade and in other occupations show a curious change of position as the time after leaving school increases. On first leaving school 50.6 per cent of the total group entered their own trade, while 25.3 per cent entered other occupations; at the end of the first year, the proportion in their own trade still exceeded the proportion in other occupations, but the difference was much less. Of the girls reporting as to their condition at the end of the second year out of school, the proportion in other occupations slightly exceeded the proportion in their own trade, and of those reporting as to the end of the third year, those in other occupations were 50 per cent of the group, practically the proportion which on first leaving school went into the trade for which trained. Of course, the numbers in these groups decreases steadily, but the proportion in other occupations increases with equal steadiness.

An interesting difference appears in the proportions earning and not earning wages at specified times after leaving the trade schools of Boston and Worcester. In Boston the great majority, 99.6 per cent,[1] entered wage-earning occupations on leaving trade school, but in Worcester almost one-fourth failed to do so. In Boston the proportion of those earning decreases as the time after leaving school lengthens, while the proportion of those not earning increases. Just the reverse is true in Worcester. While 28.9 per cent were not earning at the end of the first year after leaving school, 15.1 per cent of those out of school as much as two years were not earning at the end of the second year, and only 10 per cent of those out three years were not earning at the end of the third year. The large amount of idleness at the end of the first year is due largely to the group going out within the most recent year, who have found it extremely difficult to secure employment in the sewing trades for two reasons:

---

[1] See Table 45, p. 77.

First, the previous classes have practically supplied the demand for young workers in the custom trades, and, second, the factory sewing trades, which in Worcester are mostly the manufacture of corsets and underwear, had at the time of this investigation been suffering severe industrial depression for several years. As the girls grow older, new opportunities become available, and a decreasing proportion is found at home. Marriage has scarcely affected the situation, only three girls having been married at the time of the investigation.

Some variation is found within the different trades in the utilization of the training in a wage-earning capacity. The following table shows the distribution at specified times after leaving the trade school of the girls trained for the different trades:

TABLE 84.—NUMBER AND PER CENT OF WORCESTER TRADE SCHOOL GIRLS TRAINED FOR THE SEWING TRADES WHO WERE EARNING AND NOT EARNING WAGES WHEN OUT OF SCHOOL EACH SPECIFIED LENGTH OF TIME.

Length of time out of trade school.	Number.					Per cent earning and not earning wages.			
	Grand total.	Earning wages.			Not earning wages.	Earning wages.			Not earning wages.
		Total.	In their trade.	In other occupations.		Total	In their trade.	In other occupations.	
DRESSMAKING.									
At first leaving	108	70	46	24	38	64.8	42.6	22.2	35.2
At end of—									
First year	108	67	34	33	41	62.0	31.5	30.5	38.0
Second year	44	37	16	21	7	84.1	36.4	47.7	15.9
Third year	10	9	4	5	1	90.0	40.0	50.0	10.0
MILLINERY.									
At first leaving	29	28	18	10	1	96.6	62.1	34.5	3.4
At end of—									
First year	29	26	15	11	3	89.7	51.7	38.0	10.3
Second year	20	18	7	11	2	90.0	35.0	55.0	10.0
Third year	4	4	....	4	....	100.0	....	100.0	....
CLOTH MACHINE OPERATING.									
At first leaving	29	28	20	8	1	96.6	69.0	27.6	3.4
At end of—									
First year	29	26	17	9	3	89.7	58.6	31.0	10.3
Second year	21	18	13	5	3	85.7	61.9	23.8	14.3
Third year	6	5	4	1	1	83.3	66.6	16.7	16.7

Nearly two-thirds (65.1 per cent) of these girls had been trained for dressmaking, and in this group were found the smallest proportions utilizing their training, for the trade can not assimilate such a large number of young, partially equipped workers. The power-machine operators show the largest proportion entering their trade on leaving school, more than two-thirds doing so, as against over two-fifths of the dressmakers, and over three-fifths of the milliners.

At the end of the first year after leaving school, less than one-third of the dressmakers, over one-half of the milliners, and less than three-fifths of the power-machine operators were still in their trade. The dressmakers and the power-machine operators who had been out of school as much as two years both showed a larger proportion working in their own trade at the end of the second year after leaving school than were working at the end of the first year, while the milliners showed a much smaller proportion. Of the girls who had been out of school three years, the dressmakers and power-machine operators showed a still larger proportion in their own trades at the end of the third year, while there were none of the milliners working in their trade. The fact that none of the milliners had continued in their trade seems due to two causes, the seasonal character of the trade and the small opportunity it offers for steady workers. The young girls just leaving trade school sometimes displace the girls who have been out in the trade for a year or two, because in the shops of a small city the employer does most of the skilled work, and the young girl who can do the simple processes nearly as well as the girl who has been at them for a year or two will work for smaller wages. As only four milliners had been out for three years, much significance can not be attached to this showing.

LENGTH OF WORKING EXPERIENCE AND EMPLOYMENT.

When the length of working experience is considered instead of length of time out of trade school, the situation does not change essentially. According to the time they had been at work the 133 girls who had worked at all were, at the time of the investigation, distributed as follows:

TABLE 85.—NUMBER AND PER CENT OF WORCESTER TRADE SCHOOL GIRLS WITH SPECIFIED EXPERIENCE WHO WERE EARNING AND NOT EARNING WAGES.

Length of experience.	Total.	Earning wages in their own trade.		Earning wages in other occupations.		Not earning wages.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 1 year	60	24	40.0	24	40.0	12	20.0
1 and under 2 years	51	27	52.9	22	43.1	2	3.9
2 years and over	22	11	50.0	11	50.0	....	....
Total	133	62	46.6	57	42.9	14	10.5

Among those who had worked less than one year, precisely half of those earning wages were in their own trade and half in other occupations, and exactly the same division was found among those who had worked for two years or more. Those working one and under two years show a larger proportion in their own trade than in other occupations. The real difference which length of experience brings

TABLE 96.—NUMBER AND PER CENT OF TRADE-TRAINED GIRLS IN WORCESTER IN EACH OCCUPATION AT SPECIFIED TIMES AFTER BEGINNING WORK.

NUMBER.

Occupation.	Girls employed in specified occupation.									
	At beginning work.	At the end of—								
		1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.
Custom hand sewing	2	2	3	2	2	1				
Factory—hand processes:										
Boning	14	12	9	6	4					
Hand shaping				1	1	2	2	1	1	1
Folding	1	3	3	2						
Pressing	1	1	1							
Examining	3	2	2	1	1	1				
Hand stamping		1	1	1	1	1				
Hand sewing	2	2	2	4	4	3	2	1		
Pinning girdles			1	1						
Fringing	1	1	1							
Orders	1									
Total	23	22	20	16	11	7	4	2	1	1
Factory—machine processes	5	8	14	23	27	24	19	19	12	8
Total, sewing trades	30	32	37	41	40	32	23	21	13	9
Other occupations	16	14	8	3	2	3	2	1	1	
Grand total	46	46	45	44	42	35	25	22	14	9

PER CENT.

Occupation.	At beginning work.	1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.
Custom—hand sewing	6.6	6.2	8.1	4.9	5.0	3.1				
Factory—hand processes	76.7	68.8	54.1	39.0	27.5	21.9	17.4	9.5	7.7	11.1
Factory—machine processes	16.7	25.0	37.8	56.1	67.5	75.0	82.6	90.5	92.3	88.9

At the time of the investigation practically all were engaged in the factory sewing trades, but more than three-fourths had begun work in the hand processes in the factory, such as boning (in the corset factory), folding, and examining. Not until the end of the fourth year were as many as two-thirds or more employed in the machine processes. For the girls without training these hand processes provide a kind of apprenticeship, not in training for machine work, but in handling materials, speed, endurance, and application. The young girl trained in the trade school is usually able to skip these preliminary unrelated processes. In the corset factories, which employ the largest number of women in the sewing trades in Worcester, the power-machine operating is very difficult, involving the joining of curved edges, the use of complicated two, three, four, five, and six needle machines, and requires great speed as well as accuracy and skill. A few of the young trade-school girls have been placed directly on the simple power-machine sewing processes after experience in "one-needle and two-needle joining" in the school, but the more mature workers are usually given the preference on the machines.

The average and the classified weekly wages in successive years after beginning work of 46 trade-trained girls are given in Tables 97 and 98.

TABLE 97.—AVERAGE WEEKLY WAGES AT SPECIFIED TIMES AFTER BEGINNING WORK OF TRADE-TRAINED GIRLS IN WORCESTER.

Length of time at work.	Girls working at specified times in—			
	Sewing trades.		Other occupations.	
	Number.	Average weekly wage.	Number.	Average weekly wage.
At beginning work..	29	$4.34	17	$3.69
At end of—				
First year.......	31	5.36	15	5.02
Second year.....	35	6.81	10	5.54
Third year......	37	6.89	7	6.02
Fourth year.....	38	7.33	4	6.38
Fifth year.......	31	7.83	4	6.88
Sixth year......	23	7.96	2	6.45
Seventh year....	21	7.89	1	....
Eighth year.....	12	7.75	2	7.50

TABLE 98.—NUMBER AND PER CENT OF WORCESTER TRADE-TRAINED GIRLS IN CLASSIFIED WAGE GROUPS, AT SPECIFIED TIMES AFTER BEGINNING WORK.

NUMBER.

Weekly wage.	Girls earning specified wage.									
	At first leaving.	At the end of—								
		1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.
SEWING TRADES.										
Under $3....................	10	3	1	2	1	......	......	......	......	......
$3 and under $4..............	2	2	......	......	1	......	......	1	......	......
$4 and under $5..............	3	4	1	1	2	......	......	......	......	......
$5 and under $6..............	5	7	6	5	3	1	......	2	......	......
$6 and under $7..............	4	8	8	10	9	8	4	3	3	2
$7 and under $8..............	4	5	10	7	7	8	8	5	4	3
$8 and under $9..............	1	2	6	6	7	7	5	4	3	1
$9 and under $10..............	......	......	3	5	4	3	3	2	1	......
$10 and over................	......	......	......	1	4	4	3	4	1	3
Total....................	29	31	35	37	38	31	23	21	12	9
OTHER OCCUPATIONS.										
Under $3....................	4	1	1	......	......	......	......	......	......	......
$3 and under $4..............	5	2	1	......	......	......	......	......	......	......
$4 and under $5..............	6	6	3	2	1	1	......	......	......	......
$5 and under $6..............	1	1	......	......	1	......	1	......	......	......
$6 and under $7..............	1	3	2	3	......	......	......	......	1	......
$7 and under $8..............	......	1	2	2	1	2	1	......	......	......
$8 and under $9..............	......	......	......	......	1	1	......	1	......	......
$9 and under $10..............	......	1	1	......	......	......	......	......	1	......
$10 and over................	......	......	......	......	......	......	......	......	......	......
Total....................	17	15	10	7	4	4	2	1	2	......

PER CENT.

Weekly wage.	At first leaving.	1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.
SEWING TRADES.										
Under $6....................	69.0	51.6	22.9	21.6	18.4	3.2	......	14.3	......	......
$6 and over..................	31.0	48.4	77.1	78.4	81.6	96.8	100.0	85.7	100.0	100.0
Under $8....................	96.6	93.6	74.3	69.4	63.9	56.7	52.2	55.0	58.3	62.5
$8 and over..................	3.4	6.4	25.7	30.6	36.1	43.3	47.8	45.0	41.7	37.5
OTHER OCCUPATIONS.										
Under $6....................	94.1	66.7	50.0	28.6	50.0	25.0	50.0	......	......	......
$6 and over..................	5.9	33.3	50.0	71.4	50.0	75.0	50.0	100.0	100.0	......
Under $8....................	100.0	93.3	90.0	100.0	66.7	66.7	100.0	......	50.0	......
$8 and over..................	......	6.7	10.0	......	33.3	33.3	......	100.0	50.0	......

Comparing the average wage of the trade-trained girls in the sewing trades with those of the trade-school girls in the same kind of work, the power-machine operators, it appears that the trade-trained girls began at a slightly higher average, $4.34 against $3.92, but by the end of the first year the advantage was on the side of the trade-school girls, who were earning an average wage of $6.14 against the $5.36 of the trade-trained girls. At the end of the second year the trade-school girl still had the advantage, though the difference between the average wages of the two groups was less than at the end of the first year. As there were only three girls in the trade-school group who had worked three years the comparison can hardly be carried beyond the second year.

A comparison of these wages with those received by the trade-trained factory sewers in Boston shows the lower wage scale prevailing in Worcester. Throughout their working experience these Worcester workers never averaged $8; in Boston by the end of the third year the corresponding group averaged $8.08. (See Table 62, p. 105.) Up to the fourth year in Worcester almost two-thirds of those employed in the sewing trades earned less than $8 and of those working from five to nine years more than one-half earned less than $8. At the end of the fourth year in Boston only two-fifths (41.2 per cent) earned less than $8, and of those working from five to nine years only a little over one-fifth (22 per cent) failed to reach $8.

The majority of these girls were 20 years of age or over, and had worked five years or more. They do not, therefore, afford a satisfactory comparison with the trade-school girls, the majority of whom were under 20 and none of whom had a working experience of more than three years. The younger girls offer a more satisfactory basis for comparison, but there were only 11 under 20 years of age, three of whom earned less than $6 and four earned less than $7. Only four had worked less than three years, two of whom earned less than $6 while two earned $7. The young worker occupies a very small place in the skilled sewing trades, either in custom or wholesale manufacturing, and particularly is this true outside of the large cities. Since these girls in the Worcester Evening Trade School come for training in making their own clothes and not for trade training, they are probably fairly typical of the workers in the sewing trades of Worcester, and their experiences give a glimpse into industrial opportunities in this type of city.

CAMBRIDGE GIRLS' TRADE SCHOOL.

The Cambridge Trade School has been in existence too short a time to throw any light on the question of the industrial efficiency of trade-school girls. It was established February, 1913, and up to the time of the investigation 113 girls had gone out from the school.

AGE, INDUSTRIAL DISTRIBUTION, AND WAGES OF GIRLS STUDIED.

Tables 99, 100, 101, and 102 show the age, wage, and experience of the 51 girls who were earning wages, the distribution as to occupation of the 98 who were located, and the age at beginning work.

TABLE 99.—NUMBER OF CAMBRIDGE TRADE SCHOOL GIRLS IN SPECIFIED WAGE GROUPS, BY AGE AND LENGTH OF WORKING EXPERIENCE.

Wage group.	Number of girls earning specified wage.							Total.
	Present age.			Length of experience.				
	Under 16 years.	16 and under 18 years.	18 years and over.	Under 6 months.	6 and under 12 months.	12 and under 18 months.	18 months and over.	
Under $5	6	13	6	8	13	3	1	25
$5 and under $6	1	7	3	1	5	1	4	11
$6 and over	....	8	6	2	7	3	2	14
Not reported	....	1	....	1	....	....	....	1
Total	7	29	15	12	25	7	7	51

TABLE 100.—NUMBER AND PER CENT OF CAMBRIDGE TRADE SCHOOL GIRLS TRAINED IN SPECIFIED COURSES WHO WERE EARNING AND NOT EARNING WAGES.

Condition as to earning wages.	Number.				Per cent.			
	Dress-making.	Milli-nery.	Cook-ing.	Total.	Dress-making.	Milli-nery.	Cook-ing.	Total.
Earning:								
In their own trades	8	3	4	15	11.9	15.8	33.3	15.3
In other trades	27	7	2	36	40.3	36.8	16.7	36.7
Total	35	10	6	51	52.2	52.6	50.0	52.0
Not earning:								
Married	2	1	1	4	3.0	5.3	8.3	4.1
At home	17	4	3	24	25.4	21.0	25.0	24.5
At home—housework	6	1	2	9	9.0	5.3	16.7	9.2
At school	4	3	....	7	6.0	15.8	....	7.2
Dead	2	....	....	2	3.0	....	....	2.0
Lost position	1	....	....	1	1.4	....	....	1.0
Total	32	9	6	47	47.8	47.4	50.0	48.0
Grand total	67	19	12	98	100.0	100.0	100.0	100.0

TABLE 101.—NUMBER OF CAMBRIDGE TRADE SCHOOL GIRLS IN SPECIFIED WAGE GROUPS, BY AGE AND OCCUPATION AT TIME OF INVESTIGATION.

Occupation at time of investigation.	Number of girls earning specified wages who were—												Grand total.
	Under 16 years.			16 and under 18 years.					18 years and over.				
	Under $5	$5 and under $6	Total.	Under $5	$5 and under $6	$6 and over.	Not reported.	Total.	Under $5	$5 and under $6	$6 and over.	Total.	
In their own trades:													
Dressmaking	1		1		1	1	1	3	1	1	2	4	8
Millinery				1		1		2			1	1	3
Cooking				1	1			2	2			2	4
Total	1		1	2	2	2	1	7	3	1	3	7	15
In related trades						1		1					1
In other occupations:													
Manufactures	4	1	5	2	3	4		9					14
Trade, transportation, clerical work	1		1	6	3	1		10	2		3	5	16
Domestic service				3				3	1	1		2	5
Total	5	1	6	11	6	5		22	3	1	3	7	35
Grand total	6	1	7	13	8	8	1	30	6	2	6	14	51

TABLE 102.—NUMBER OF CAMBRIDGE TRADE SCHOOL GIRLS IN SPECIFIED WAGE GROUPS, BY AGE AT BEGINNING WORK, AND INITIAL OCCUPATION.

Initial occupation.	Number of girls earning specified wages who, at beginning work, were—								Grand total.
	Under 16 years.				16 years and over.				
	Under $5	$5 and under $6	$6 and over.	Total.	Under $5	$5 and under $6	$6 and over.	Total.	
In their own trade:									
Dressmaking	2	1		3	3	4	3	10	13
Millinery					1	1	1	3	3
Cooking	2			2	5		1	6	8
Total	4	1		5	9	5	5	19	24
In related trades	2			2			1	1	3
In other occupations:									
Manufactures	7	2	1	10	1	2	1	4	14
Trade, transportation, clerical work	4	1		5	7	2	5	14	19
Domestic service	2			2	3	1		4	6
Total	13	3	1	17	11	5	6	22	39
Grand total	19	4	1	24	20	10	12	42	66

It will be seen that more than two-thirds of the 51 girls who were employed at the time of the investigation were under 18 years of age and almost three-fourths had been at work less than one year. One-half of those reporting their wages earned less than $5 a week, and nearly three-fourths (72 per cent) earned less than $6.

Only a little over one-half of the girls located were earning, and of those who were gainfully employed not one-third (29.4 per cent) were working at the trade for which they had been trained. Of the 47 who were not earning, 33 (70.2 per cent) were at home, not married. The immaturity of many of these girls makes it difficult for them to secure profitable employment. Of the seven girls under 16 only one was employed in the trade for which she had been trained, while five were in manufactures. One-fourth of the girls aged 16 and under 18, and one-half of those aged 18 and over were in the trades for which they had been trained, showing the relation of maturity to success in securing employment in the trades for which the school trains. Maturity also has an important relation to the wage, none of those under 16 years, two-sevenths of those aged 16 but under 18, and two-fifths of those aged 18 or over earning $6 or more a week.

Sixty-six of the 98 girls located went to work on leaving trade school, a few more than one-third entering the trade for which they were trained. Almost four-fifths of these were 16 years of age or over, and four-fifths earned an initial wage of less than $6. About three-fifths entered wholly unrelated occupations. More than one-half of these were 16 years of age or over, and more than four-fifths earned an initial wage of less than $6.

The skilled sewing trades hold a very small place in Cambridge, and the local dressmakers and milliners have little or no need for the young, partially equipped worker. For opportunity to exercise her trade, therefore, the young trade-school girl trained in sewing would usually have to go to the shops of Boston. The large factories in Cambridge, which have a considerable demand for unskilled or medium skilled young girls, draw many of these young workers because of their proximity. The stores of Boston and Cambridge offer them opportunities as cash girls and bundle girls. It appears, therefore, that there is but little opportunity for the girls trained in the custom sewing trades to enter their trades after leaving school. The cooking courses which the school is developing may lead to more promising opportunities, but the extreme youth of the girls on leaving handicaps them seriously in this work.

SUMMARY.

The trade experience of the pupils trained in the Worcester and Cambridge trade schools is of interest in showing very concretely the necessity for an intimate understanding and recognition by trade educators of industrial needs and opportunities. The preliminary surveys of the industrial opportunities in Worcester and Cambridge in 1911 [1] pointed out the very limited number of opportunities, especially for the young girl, in the custom sewing trades in these cities, and urged that the emphasis be put on the power-machine sewing trades. The rapid development of the ready-made clothing trade during the past five years has made the situation even less favorable for the young girl trained in the sewing trades. The increasing regulation of the work of children under 16 years old has also helped to diminish the opportunities open to the young trade-school girl. Extremely limited trade opportunities to begin with, and increasing limitations due to industrial evolution and legal regulation of child labor, therefore, explain the small proportion of girls who have used their trades in these two smaller cities. The Cambridge Trade School, moreover, because of its very recent establishment, is in much the same position as the Boston Trade School during its first years—that is, it is the last resort of many pupils who have little conception of its purpose, "but thought they would try it." These soon find themselves little adapted to the requirements of the particular trade chosen and drop out. Because of their immaturity and lack of training they are then either unemployed or find work in unskilled employment.

---

[1] Department of Research, Women's Educational and Industrial Union: A trade school for girls, a preliminary investigation in a typical manufacturing city, Worcester, Mass., United States Bureau of Education, Bulletin, 1913, No. 17. The Cambridge report was not published.

Both schools fully appreciate the situation and are seeking to solve the problem in different ways.

In Worcester the plan is to limit the number trained for the custom sewing trades and to urge a four years' course. With a background of four years' experience in the school and the maturity of 18 years or more it is believed these few girls can meet the trade requirements in this particular locality. The department of power-machine sewing is to be expanded to several times its present size, since the only large opportunity in the sewing trades is found in the factory sewing trades, the manufacture of corsets and muslin underwear predominating. A domestic arts course of four years is to be offered to the girl who can spend four years in school but need not prepare directly for wage earning, since there is no high school of this type in Worcester.

Although the girls from the Worcester Trade School have been in the industrial world too short a time to afford the basis for a satisfactory study of industrial efficiency, they compare favorably with those trained in the trades. Their wage scale is somewhat lower than that prevailing among the Boston girls, but their longer working season probably neutralizes this disadvantage. Moreover, many of the same tendencies can be discovered in their experience that were found in the experience of the Boston girls. The relation between wage and increasing maturity and wage and length of experience is obvious.

In Cambridge, as in Worcester, the necessity of limiting the numbers trained for custom sewing is recognized. The millinery department has been given up. Emphasis is being put on trade cooking, but in this line also the extreme youth of the girls seriously limits wage-earning opportunities. Effort is also being made to familiarize parents with the real motive of the school, that there may be less waste due to a misunderstanding of its purpose.

CHAPTER VI.—THE GIRL WHO HAS BEEN TRAINED IN THE TRADE SCHOOL.

LOCATION IN REGARD TO SCHOOL.

AREA FROM WHICH BOSTON TRADE SCHOOL GIRLS ARE DRAWN.

The 2,044 girls who have gone out from the Boston Trade School for Girls during its 10 years of existence represent a wide range of social and economic environments. In this respect, it is not different from the ordinary public school, but it is unique in the wide geographical area from which it draws its pupils. These girls have come from 88 different sections of the city and surrounding country. Since it was the only school of its kind in Massachusetts from 1904 to 1911, and since it offered a new type of specialized instruction, with an immediate, practical end in view, it attracted a relatively large proportion, 15.8 per cent, from suburbs. The majority, 80.1 per cent, naturally came from the city of Boston, but even these girls represented 18 widely different sections of the city, from the congested foreign quarters of the North and West Ends, to the semisuburban districts of Roslindale and Forest Hills.

More than one-third, 35 per cent, lived in the South End and Roxbury, the immediate neighborhood of the school. This proximity to the school may account for the large proportion who "thought they would try it," for almost one-third of these girls living in the immediate neighborhood remained in the trade school less than three months. The outlying sections of the city, however, for the most part beyond walking distance, furnished an even larger proportion of the attendance (45.1 per cent) than came from the immediate neighborhood.

Although the trade school is not located in the center of the city, it is very accessible to many outlying sections through the Boston Elevated System. Its favorable position near a junction of the elevated system has doubtless helped to make possible the attendance of the comparatively large proportion, 15.8 per cent, who came from suburbs lying within a 10-mile circuit of Boston. Almost three-fourths, 72.7 per cent, of these suburban girls, however, lived within the 5-cent car-fare limit. Of the total attendance, 2.9 per cent came from outside towns and cities, almost one-half of these from within a 15-mile circuit of Boston, although 36 girls came from a greater distance. For 22 girls (1.1 per cent) location was not reported. Almost two-thirds, 63.9 per cent, therefore, came from such a distance that they would ordinarily be dependent on the

TABLE 76.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS BEGINNING WORK AT SPECIFIED AGE IN SPECIFIED OCCUPATIONS, AND EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEAR'S EXPERIENCE.

NUMBER.

Years of experience, age at beginning work, and classified weekly wages.	In trade for which trained.						In other occupations.	Total.
	Dressmaking.	Millinery.	Power-machine operating on—		Cooking and design.	Total.		
			Cloth.	Straw hats.				
END OF FIRST YEAR.								
14 and under 16 years, earning—								
Under $6	42	14	3			59	13	72
$6 and under $8	49	12	14	2	1	78	7	85
$8 and over	6			9		15	3	18
Not reported	1					1	1	2
Total	98	26	17	11	1	153	24	177
16 and under 18 years, earning—								
Under $6	76	28	8		3	115	20	135
$6 and under $8	118	29	14	13	2	176	21	197
$8 and over	8	6	1	20		35	9	44
Not reported	2	1	2		1	6	2	8
Total	204	64	25	33	6	332	52	384
18 years and over, earning—								
Under $6	27	9	2	2	1	41	3	44
$6 and under $8	43	15	7	5	1	71	7	78
$8 and over	6	4	2	5	2	19	9	28
Not reported	2			1		3	2	5
Total	78	28	11	13	4	134	21	155
Grand total	380	118	53	57	11	619	97	716
END OF THIRD YEAR.								
14 and under 16 years, earning—								
Under $6	5	1				6	4	10
$6 and under $8	32	8	4			44	17	61
$8 and over	24	8	3	4	[1] 1	40	11	51
Not reported	2					2	1	3
Total	63	17	7	4	[1] 1	92	33	125
16 and under 18 years, earning—								
Under $6	3	2	1			6	11	17
$6 and under $8	54	7	4	2	2	69	37	106
$8 and over	54	13	5	10		82	36	118
Not reported	1	1				2	5	7
Total	112	23	10	12	2	159	89	248
18 years and over, earning—								
Under $6	5	1				6	7	13
$6 and under $8	27	4	2			33	11	44
$8 and over	9	6	3	2		20	10	30
Not reported	2	1				3	2	5
Total	43	12	5	2		62	30	92
Grand total	218	52	22	18	3	313	152	465

PER CENT EARNING EACH CLASSIFIED AMOUNT.[2]

Years of experience, age at beginning work, and classified weekly wages.	Dressmaking.	Millinery.	Cloth.	Straw hats.	Cooking and design.	Total.	In other occupations.	Total.
END OF FIRST YEAR.								
14 and under 16 years, earning—								
Under $6	43.3	53.8	17.6			38.8	56.5	41.1
$6 and under $8	50.5	46.2	82.4	18.2		51.3	30.4	48.6
$8 and over	6.2			81.8	100.0	9.9	13.0	10.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

---

[1] Design.

[2] Based on number of girls whose wages were reported.

TABLE 76.—NUMBER AND PER CENT OF BOSTON TRADE-SCHOOL GIRLS BEGINNING WORK AT SPECIFIED AGE IN SPECIFIED OCCUPATIONS, AND EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEAR'S EXPERIENCE—Concluded.

PER CENT EARNING EACH CLASSIFIED AMOUNT—Concluded.

Years of experience, age at beginning work, and classified weekly wages	In trade for which trained						In other occupations.	Total.
	Dressmaking.	Millinery.	Power-machine operating on		Cooking and design	Total.		
			Cloth.	Straw hats.				
END OF FIRST YEAR—concluded.								
16 and under 18 years, earning—								
Under $6	37.6	44.5	33.3		60.0	35.3	40.0	35.9
$6 and under $8	58.4	46.0	58.4	33.3	40.0	54.0	42.0	52.4
$8 and over	4.0	9.5	8.3	66.7		10.7	18.0	11.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18 years and over, earning—								
Under $6	35.5	32.1	18.2	16.6	25.0	31.3	15.8	29.3
$6 and under $8	56.6	56.8	63.6	41.7	25.0	54.2	36.8	52.0
$8 and over	7.9	11.1	18.2	41.7	50.0	14.5	47.4	18.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
END OF THIRD YEAR.								
14 and under 16 years, earning—								
Under $6	8.2	5.8				6.7	12.5	8.2
$6 and under $8	52.5	47.1	57.1			48.9	53.1	50.0
$8 and over	39.3	47.1	42.9	100.0	100.0	44.4	34.4	41.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16 and under 18 years, earning—								
Under $6	2.8	9.1	10.0			3.8	13.1	7.0
$6 and under $8	48.6	31.8	60.0	16.7		44.0	44.0	44.0
$8 and over	48.6	59.1	30.0	83.3	100.0	52.2	42.9	49.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18 years and over, earning—								
Under $6	12.2	9.1				10.1	25.0	15.0
$6 and under $8	65.9	59.1	40.0			56.0	39.3	50.6
$8 and over	21.9	31.8	60.0	100.0		33.9	35.7	34.4
Total	100.0	100.0	100.0	100.0		100.0	100.0	100.0

It seems probable that a girl entering a difficult trade like this at such an early age does not persist in it for a year unless she has either a natural aptitude for it, or an amount of energy and persistence which would be likely to bring her to the front. Those entering it at a more mature age do not require so much of these qualities to remain in it, and hence are not a picked group, as these earlier ones seem to be.

At the end of the third year those who entered between the ages of 16 and 18 show the most favorable wage distribution. This is true for the group as a whole, for those as a whole who have remained in their own trades, and for those who have entered other occupations, but when those remaining in their own trades are considered trade by trade some irregularities appear. It is true of the dressmakers and milliners, but for the cloth and straw machine operators this group makes a poorer showing than either of the others. On the whole,

was a high-school graduate, and although only 16 years of age on leaving school, was able to take a $10 position as milliner in a general store in a small town on first leaving the trade school. This was, of course, unusual and may have been partially due to her early training in sewing with her mother, who was a dressmaker.

NATIVITY OF TRADE-SCHOOL GIRLS.

Since the tendency of a secondary school is to attract a selected group, that is, from families which do not have to send their girls to work at 14 years of age, it is important to discover how far the type of girl coming for trade training conforms to the type already in the trade; for her subsequent stability in the trade will probably depend largely on the extent to which she finds her surroundings congenial.

The following tables show how, in the matter of nativity, the girls trained in the Boston and Worcester schools for the sewing trades compare with the total women in those trades, as shown by United States census figures:

TABLE 106.—NUMBER AND PER CENT OF WOMEN OF SPECIFIED NATIVITY IN THE SEWING TRADES IN BOSTON AND WORCESTER ACCORDING TO THE CENSUS OF 1910.

NUMBER.

Nativity.	Boston.[1]				Worcester.[2]			
	Dressmaking.	Millinery.	Machine operating.	Total.	Dressmaking.	Millinery.	Machine operating.	Total.
Native white:								
Native parentage	1,465	545	537	2,547	247	88	352	687
Foreign parentage	1,801	803	1,348	3,952	296	177	1,129	1,602
Total	3,266	1,348	1,885	6,499	543	265	1,481	2,289
Foreign-born white	3,016	474	2,167	5,657	246	42	645	933
Negro	283	17	8	308	11	....	6	17
All other	3	1	3	7	.	.	. .	......
Grand total	6,568	1,840	4,063	12,471	800	307	2,132	3,239

PER CENT OF EACH NATIVITY.

Nativity.	Boston. Dressmaking.	Boston. Millinery.	Boston. Machine operating.	Boston. Total.	Worcester. Dressmaking.	Worcester. Millinery.	Worcester. Machine operating.	Worcester. Total.
Native white:								
Native parentage	22.3	29.6	13.2	20.4	30.9	28.7	16.5	21.2
Foreign parentage	27.4	43.6	33.2	31.7	37.0	57.6	53.0	49.5
Total	49.7	73.2	46.4	52.1	67.9	86.3	69.5	70.7
Foreign-born white	45.9	25.8	53.3	45.4	30.7	13.7	30.2	28.8
Negro	4.3	.9	.2	2.5	1.4	....	.3	.5
All other	.1	.1	.1	.1	.....	....	...	.....
Grand total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] From Thirteenth Census of the United States, 1910, Vol. IV, Population, p. 510.

[2] Idem, p. 607.

TABLE 77.—NUMBER AND PER CENT OF TRADE-TRAINED GIRLS BEGINNING WORK AT SPECIFIED AGE IN SPECIFIED OCCUPATIONS AND EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEAR'S EXPERIENCE—Concluded.

NUMBER—Concluded.

Years of experience, age at beginning work, and classified weekly wages.	In trade for which trained			In other occupations.	Total.
	Dressmaking.	Clothing machine operating.	Total.		
END OF THIRD YEAR—concluded.					
16 and under 18 years, earning—					
Under $6 . . .	2	3	5	. . .	5
$6 and under $8	6	7	13	. . .	13
$8 and over	14	16	30	4	34
Not reported	1	1	2		2
Total	23	27	50	4	54
18 years and over, earning—					
Under $6 . . .	2		2	1	3
$6 and under $8	2	3	5		5
$8 and over	5	5	10		10
Not reported					
Total	9	8	17	1	18
Grand total	[1] 63	59	122	18	[1] 140

PER CENT EARNING EACH CLASSIFIED AMOUNT.[2]

Years of experience, age at beginning work, and classified weekly wages.	Dressmaking.	Clothing machine operating.	Total.	In other occupations.	Total.
END OF FIRST YEAR.					
14 and under 16 years, earning—					
Under $6	85.3	58.8	73.7	68.4	72.4
$6 and under $8	11.8	37.1	22.8	15.8	21.0
$8 and over	2.9	4.1	3.5	15.8	6.6
Total	100.0	100.0	100.0	100.0	100.0
16 and under 18 years, earning—					
Under $6	56.7	37.9	47.5	37.5	45.3
$6 and under $8	26.7	44.8	35.6	43.8	37.4
$8 and over	16.6	17.3	16.9	18.7	17.3
Total . .	100.0	100.0	100.0	100.0	100.0
18 years and over, earning—					
Under $6	41.2	47.1	44.1	50.0	44.4
$6 and under $8	47.1	47.1	47.1	. . . . .	44.4
$8 and over	11.7	5.8	8.8	50.0	11.2
Total	100.0	100.0	100.0	100.0	100.0
END OF THIRD YEAR.					
14 and under 16 years, earning—					
Under $6	44.9	9.1	34.0	30.8	33.3
$6 and under $8	31.0	27.3	30.8	53.8	39.4
$8 and over	24.1	63.6	35.2	15.4	27.3
Total	100.0	100.0	100.0	100.0	100.0
16 and under 18 years, earning—					
Under $6	9.1	11.5	10.4	. . . .	9.6
$6 and under $8	27.3	26.9	27.1	. . . . . .	25.0
$8 and over	63.6	61.5	62.5	100.0	65.4
Total	100.0	100.0	100.0	100.0	100.0
18 years and over, earning—					
Under $6	22.2		11.8	100.0	16.7
$6 and under $8	22.2	[illegible]	29.4	. . . . .	27.8
$8 and over . .	55.6	62.5	58.8		55.5
Total	100.0	100.0	100.0	100.0	100.0

---

[1] Not including 1 earning $6 and under $8 whose age at beginning work was not not reported.

[2] Based on number of girls whose wages were reported.

Comparing the wage distribution at the end of the first year, those entering at 16 but under 18 years of age show a marked advantage over those entering under 16, and a less marked but still apparent advantage over those entering at over 18 or over. Those in other occupations who began work at 18 or over are an exception to this general statement, but as there are only two in this group, they are not fairly comparable with the 20 who entered under 16, and the 16 who entered at 16 but under 18. At the end of the third year, the same general situation is found. Those entering at 16 but under 18 have a more favorable wage distribution than those who entered either earlier or later. Here, again, there is one exception to the general rule: The cloth machine operators who began work at 18 or over have a better wage level than either of the other two groups in this trade. Only eight, however, began work in this age group, against 24 who began before they were 16, and 27 who began at 16 but under 18, so that the comparison is not a very satisfactory one. More emphatically even than was the case with the trade-school girls, the experience of the trade-trained girls seems to indicate that the most favorable age for entering the sewing trades is between 16 and 18 years of age. Since these trades are practically closed to the girl under 16 years of age in Massachusetts, the evidence afforded by the experience of both the trade-school and the trade-trained girls as to the best age for entering may provide some comfort to those regretting the situation.

ACADEMIC EDUCATION.

Preliminary education seemed to be an important factor in determining a girl's ability to survive in the trade school, and the selective process which went on there resulted in the formation of a really selected group from an educational standpoint, for the largest proportion were grammar-school graduates.[1] Moreover, it determines to a large extent the kind of occupation which the girl enters if she leaves her trade. In addition to the preliminary education, the year, more or less, spent in the trade school has an important influence in the girl's wage-earning career. The work done in the unspecialized public schools and the work done in the trade school are alike preparatory, and a consideration of both is necessary to make clear the relation of educational equipment and wage advancement.

WAGES OF TRADE-SCHOOL DRESSMAKERS, CLASSIFIED ACCORDING TO PREVIOUS SCHOOLING.

To simplify the combination of three factors affecting wage advancement —that is, previous schooling, length of trade training, and length of working experience—this particular discussion will be limited to the wages of trade-school dressmakers at the end of their first and third years out of trade school, considered in their relation to academic schooling. The following table shows the wages at these two periods for the trade-school dressmakers, classified by their school grade and the length of time spent in the trade school:

---

[1] See Table 6, p. 36.

TABLE 78.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL TRAINED DRESSMAKERS EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEARS AT WORK, AFTER SPECIFIED MONTHS OF ATTENDANCE AT TRADE SCHOOL, BY GRADE OF PREVIOUS SCHOOLING.

NUMBER.

Years at work, months of attendance at trade school, and classified weekly wages.	Grammar school: Graduates.	Grammar school: Nongraduates.	Grammar school: Unclassified.	Grammar school: Total.	High school.	Total.
END OF FIRST YEAR.						
Under 6 months, earning—						
Under $6	5	2		7	4	11
$6 and under $8	3	2		5		5
$8 and over						
Not reported	1	2		3		3
Total	9	6		15	4	19
6 and under 12 months, earning—						
Under $6	28	13		41	9	50
$6 and under $8	20	10	1	31	18	49
$8 and over		1	1	2	3	5
Not reported	1			1	1	2
Total	49	24	2	75	31	106
12 and under 18 months, earning—						
Under $6	42	13	2	57	13	70
$6 and under $8	62	19	1	82	21	103
$8 and over	7	7		14	3	17
Not reported	1			1		1
Total	112	39	3	154	37	191
18 months and over, earning—						
Under $6	14	15	1	30		30
$6 and under $8	31	15		46	15	61
$8 and over	3	1		4	2	6
Not reported	2			2		2
Total	50	31	1	82	17	99
Grand total	220	100	6	326	89	415
END OF THIRD YEAR.						
Under 6 months, earning—						
Under $6						
$6 and under $8	2	2		4	2	6
$8 and over	3	1		4	1	5
Not reported	2	1		3		3
Total	7	4		11	3	14
6 and under 12 months, earning—						
Under $6	5	1		6		6
$6 and under $8	23	11		34	10	44
$8 and over	11	7	2	20	11	31
Not reported	1			1		1
Total	40	19	2	61	21	82
12 and under 18 months, earning—						
Under $6	7	1	1	9	1	10
$6 and under $8	30	12	1	43	10	53
$8 and over	31	14		45	11	56
Not reported	1	1		2		2
Total	69	28	2	99	22	121
18 months and over, earning—						
Under $6	2	1		3	1	4
$6 and under $8	21	8	1	30	6	36
$8 and over	11	7		18	2	20
Not reported	2			2		2
Total	36	16	1	53	9	62
Grand total	152	67	[illegible]	224	[illegible]	279

TABLE 74.—NUMBER AND PER CENT OF BOSTON TRADE-SCHOOL GIRLS AND OF OF SPECIFIED YEARS'

TRADE-TRAINED GIRLS: PER CENT EARNING EACH CLASSIFIED AMOUNT.[1]

Present occupation.	Girls earning, after specified years' experience, each classified amount.											
	Under 3 years.						3 and under 5 years.					
	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.
In their trade:												
Dressmaking	60.0	30.0	6.7	3.3		100.0	6.3	18.7	56.3	18.7		100.0
Machine operating on cloth	16.1	58.1	22.6	3.2		100.0	10.0	35.0	35.0	20.0		100.0
Total	37.7	44.3	14.8	3.2		100.0	8.3	27.8	44.5	19.4		100.0
In other occupations	54.5	27.3	9.1	9.1		100.0	33.3	33.4	33.3	......		100.0
Grand total	40.3	41.7	13.9	4.1		100.0	10.3	28.2	43.6	17.9		100.0

[1] Based on number of girls whose wages were reported.

The effect of experience in raising the general level of wages received is very evident here. The proportion in the lower wage groups steadily sinks and in the higher wage groups rises as the length of experience increases. Taking the trade-school girls as a whole, the proportion receiving less than $6 a week falls from 17.9 per cent among those with an industrial experience of less than three years to 3.3 per cent among those with an industrial experience of seven years or over; for the trade-trained girls the corresponding proportions are 40.3 per cent and 1.7 per cent, respectively. The proportion earning $10 or over per week rises among the trade-school girls from 3.9 per cent in the group with less than three years' experience to 55.1 per cent in the group with seven or more years of experience, and for the trade-trained girls from 4.1 per cent to 48.3 per cent. The decrease in the low-wage groups and the increase in the high-wage groups is, on the whole, continuous, although there are a few irregularities in the distribution of those with seven or more years of experience, as compared with those having five but under seven years. Thus among the trade-school cloth machine operators, 60 per cent of those with an experience of five years but under seven, and only 50 per cent of those with seven or more years of experience were earning $10 or over a week. There were, however, only five girls in the first of these groups and two in the second, so that this irregularity is negligible.

Taking $8 per week as the minimum required for self-support, it appears that for the trade-school group as a whole, among those who had been at work for less than three years not quite one-fourth were self-supporting; among those who had been working from three to five years, nearly seven-tenths had reached or passed this

TRADE-TRAINED GIRLS EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END EXPERIENCE.—Concluded.

TRADE-TRAINED GIRLS: PER CENT EARNING EACH CLASSIFIED AMOUNT.[1]

Girls earning, after specified years' experience, each classified amount.

5 and under 7 years.						7 years and over.						Total.
Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.	Under $6	$6 and under $8	$8 and under $10	$10 and over.	Not reported.	Total.	
..	22.2	22.2	55.6		100.0	3.0	6.1	21.2	69.7		100.0	....
12.5	25.0	50.0	12.5		100.0	.	16.7	62.5	20.8		100.0	....
8.0	24.0	40.0	28.0		100.0	1.8	10.5	38.6	49.1		100.0	...
	100.0	..	.		100.0	.	100.0	..	...		100.0	...
7.7	26.9	38.5	26.9		100.0	1.7	12.1	37.9	48.3		100.0	....

point, and among those who had been working five years but under seven nearly nine-tenths were independent. At this point, apparently all those capable of reaching self-support have done so, for the next group, those having worked seven years or more, shows practically the same proportion earning less than $8 a week—11.6 per cent against 11.3 per cent. Among those earning $8 a week or over, however, the group with seven years of experience shows a larger proportion earning $10 or over than is found among any of the groups with less experience. Apparently, therefore, it takes about five years of working experience before the trade-school girl has certainly found herself and before it can be definitely known whether or not she can earn a living wage.

A comparison of the wages earned by the trade-school and the trade-trained girls according to their length of working experience affords an interesting contrast. Table 75 shows the percentage of trade-school and trade-trained girls in certain wage groups classified by length of experience.

Whether the comparison be made between the trade-school and the trade-trained girls as a whole, or between the trade-school and the trade-trained girls in a given trade, or those who have left their own trade for other occupations, the trade-school girls have a marked advantage. With the exception of the cloth machine operators with three but less than five years of experience, the trade-school girls in every group show a smaller proportion earning less than $8 a week and a larger proportion earning $8 or over than appears among the trade-trained girls. For those with less than three years of experience, the trade-trained girls show a larger proportion earning $10 or over; for those in the other experience groups, the advantage in this respect shifts from trade-school to trade-trained girls rather irregularly, the situation on the whole being favorable to the trade-school girls.

TABLE 75.—PER CENT OF BOSTON TRADE SCHOOL GIRLS AND OF TRADE-TRAINED GIRLS EARNING EACH CLASSIFIED WEEKLY AMOUNT AFTER SPECIFIED YEARS' EXPERIENCE.

Classified weekly earnings.	Per cent of girls earning each classified weekly amount after specified years' experience.							
	Under 3 years.		3 and under 5 years.		5 and under 7 years.		7 years and over.	
	Trade-school girls.	Trade-trained girls.	Trade-school girls.	Trade-trained girls.	Trade-school girls.	Trade-trained girls.	Trade-school girls.	Trade-trained girls.
Total workers earning—								
Under $8	76.0	82.0	31.8	38.5	11.3	34.6	11.6	13.8
$8 and over	24.0	18.0	68.2	61.5	88.7	65.4	88.4	86.2
$10 and over	3.9	4.1	24.3	17.9	51.6	26.9	55.1	48.3
Dressmakers in own trade earning—								
Under $8	79.5	90.0	24.6	25.0	9.4	22.2	....	9.1
$8 and over	20.5	10.0	75.4	75.0	90.6	77.8	100.0	90.9
$10 and over	2.2	3.3	18.0	18.7	53.4	55.6	64.7	69.7
Cloth machine operators in own trade earning—								
Under $8	70.0	74.2	66.7	45.0	20.0	37.5	....	16.7
$8 and over	30.0	25.8	33.3	55.0	80.0	62.5	100.0	83.3
$10 and over	....	3.2	11.1	20.0	60.0	12.5	50.0	20.8
Workers in other than own trade earning—								
Under $8	75.0	81.8	36.8	66.7	18.2	100.0	19.4	100.0
$8 and over	25.0	18.2	63.2	33.3	81.8	......	80.6	....
$10 and over	3.9	9.1	26.3	.....	30.3	......	41.9	....

The trade-school and the trade-trained dressmakers afford perhaps the most satisfactory comparison, since their work is similar and their numbers are more nearly equal than is the case with some of the other groups. In every experience group the trade-school dressmakers show a larger proportion earning $8 a week or over. Among those having less than three years of experience, one-fifth of the trade-school against one-tenth of the trade-trained dressmakers earn $8 or more a week; among those having three but under five years of experience the proportions are almost identical for the two groups, but what advantage exists is on the side of the trade-school girl. In the next experience group nine-tenths of the trade-school against a little more than three-fourths of the trade-trained girls earn $8 or more, while in the last group, those with seven or more years of experience, nearly one-tenth of the trade-trained girls fall below $8 but not a single trade-school girl fails to earn that minimum. On the other hand, in every experience group a slightly larger proportion of the trade-trained than of the trade-school girls earn $10 or over per week. The difference here, however, is so small that it does not offset the advantage on the side of the trade-school girls in the matter of earning a living wage. When the two classes of workers are compared by length of experience, the systematic training received by the trade-school girl shows its effect in the higher level of her earnings.

It will be remembered that when the earnings at the end of specific years were compared, the trade-school girl did not show a year's advantage over the trade-trained girl in dressmaking. This comparison, however, makes it evident that her training has a very real effect upon her wage-earning capacity, and that while this effect is most apparent, as would be expected, among those who enter their own trade and remain in it, it is found also among those who go into other pursuits.

AGE AT BEGINNING WORK.

EFFECT ON WAGES OF TRADE-SCHOOL GIRLS.

Since the girl under 16 years of age is increasingly excluded from the sewing trades, and since the advocates of raising the age limits maintain that the girl entering at 16 years or more really earns a better wage, it is of interest to discover to what extent this is true in immediate as well as in later returns. For this purpose a comparison is made of the wage distribution, at the end of the first and third years out of trade school, of those beginning work under 16, between 16 and 18, and 18 and over. Reports were obtained showing wages and age at beginning work for 701 girls who were still working at the end of the first year and for 450 still working at the end of the third year. Of the group working at the end of the first year, 25 per cent had begun under 16, 53.6 per cent between 16 and 18, and 21.4 per cent aged 18 or over. Of those still working at the end of the third year, 27.1 per cent had begun under 14 years old, 53.6 per cent between 16 and 18, and 19.3 at 18 or over. The age distribution of the two groups at beginning work is, therefore, very nearly the same. Table 76 shows the wage distribution at the end of the first and of the third year.

At the end of the first year the group beginning at 18 or over shows an advantage over those beginning at 16 but under 18, and these, in turn, have an advantage over those who began under 16. The oldest group makes the best showing in wages, whether it be considered as a whole or according to its trade distribution. There are some irregularities in the latter case. Those in dressmaking and millinery show a fairly steady improvement in wage level as the age at beginning increases; among the cloth machine operators the improvement is still more regular and more marked, and it is also marked among those who have gone into other occupations; but those engaged in straw machine operating and in cooking and design do not show this steady progression. The number engaged in cooking and design, however, is too small to be significant. The straw machine operators show a very curious distribution; those beginning under 16 years of age have none in the lowest wage group, and a larger proportion receiving $8 or over than is found among any of those beginning at a higher age.

TABLE 76.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS BEGINNING WORK AT SPECIFIED AGE IN SPECIFIED OCCUPATIONS, AND EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEAR'S EXPERIENCE.

NUMBER.

Years of experience, age at beginning work, and classified weekly wages.	In trade for which trained.						In other occupations.	Total.
	Dressmaking.	Millinery.	Power-machine operating on— Cloth.	Power-machine operating on— Straw hats.	Cooking and design.	Total.		
END OF FIRST YEAR.								
14 and under 16 years, earning –								
Under $6	42	14	3	....	....	59	13	72
$6 and under $8	49	12	14	2	1	78	7	85
$8 and over	6	....	....	9	....	15	3	18
Not reported	1	....	....	....	....	1	1	2
Total	98	26	17	11	1	153	24	177
16 and under 18 years, earning								
Under $6	76	28	8	....	3	115	20	135
$6 and under $8	118	29	14	13	2	176	21	197
$8 and over	8	6	1	20	....	35	9	44
Not reported	2	1	2	....	1	6	2	8
Total	204	64	25	33	6	332	52	384
18 years and over, earning –								
Under $6	27	9	2	2	1	41	3	44
$6 and under $8	43	15	7	5	1	71	7	78
$8 and over	6	4	2	5	2	19	9	28
Not reported	2	....	....	1	....	3	2	5
Total	78	28	11	13	4	134	21	155
Grand total	380	118	53	57	11	619	97	716
END OF THIRD YEAR.								
14 and under 16 years, earning								
Under $6	5	1	....	....	....	6	4	10
$6 and under $8	32	8	4	....	....	44	17	61
$8 and over	24	8	3	4	[1]1	40	11	51
Not reported	2	....	....	....	....	2	1	3
Total	63	17	7	4	[1]1	92	33	125
16 and under 18 years, earning								
Under $6	3	2	1	....	....	6	11	17
$6 and under $8	54	7	4	2	2	69	37	106
$8 and over	54	13	5	10	....	82	36	118
Not reported	1	1	....	....	....	2	5	7
Total	112	23	10	12	2	159	89	248
18 years and over, earning								
Under $6	5	1	....	....	....	6	7	13
$6 and under $8	27	4	2	....	....	33	11	44
$8 and over	9	6	3	2	....	20	10	30
Not reported	2	1	....	....	....	3	2	5
Total	43	12	5	2	....	62	30	92
Grand total	218	52	22	18		313	152	465

PER CENT EARNING EACH CLASSIFIED AMOUNT.[2]

Years of experience, age at beginning work, and classified weekly wages.	Dressmaking.	Millinery.	Cloth.	Straw hats.	Cooking and design.	Total.	In other occupations.	Total.
END OF FIRST YEAR.								
14 and under 16 years, earning								
Under $6	43.3	53.8	17.6			38.8	56.5	41.1
$6 and under $8	50.5	46.2	82.4	18.2		51.3	30.4	48.6
$8 and over	6.2			81.8	100.0	9.9	13.0	10.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

---

[1] Design.

[2] Based on number of girls whose wages were reported.

TABLE 76. NUMBER AND PER CENT OF BOSTON TRADE-SCHOOL GIRLS BEGINNING WORK AT SPECIFIED AGE IN SPECIFIED OCCUPATIONS, AND EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEAR'S EXPERIENCE—Concluded.

PER CENT EARNING EACH CLASSIFIED AMOUNT—Concluded.

Years of experience, age at beginning work, and classified weekly wages	In trade for which trained						In other occupations.	Total.
	Dressmaking.	Millinery.	Power-machine operating on		Cooking and design	Total.		
			Cloth.	Straw hats.				
END OF FIRST YEAR—concluded.								
16 and under 18 years, earning -								
Under $6	37.6	44.5	33.3		60.0	35.3	40.0	35.9
$6 and under $8	58.4	46.0	58.4	39.4	40.0	54.0	42.0	52.4
$8 and over	4.0	9.5	8.3	60.6		10.7	18.0	11.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18 years and over, earning								
Under $6	35.5	32.1	18.2	16.6	25.0	31.3	15.8	29.3
$6 and under $8	56.6	53.6	63.6	41.7	25.0	54.2	36.8	52.0
$8 and over	7.9	14.3	18.2	41.7	50.0	14.5	47.4	18.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
END OF THIRD YEAR								
14 and under 16 years, earning								
Under $6	8.2	5.8				6.7	12.5	8.2
$6 and under $8	52.5	47.1	57.1			48.9	53.1	50.0
$8 and over	39.3	47.1	42.9	100.0	100.0	44.4	34.4	41.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16 and under 18 years, earning								
Under $6	2.8	9.1	10.0			3.8	13.1	7.0
$6 and under $8	28.6	31.8	40.0	16.7		44.0	44.0	44.0
$8 and over	68.6	59.1	50.0	83.3	100.0	52.2	42.9	49.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18 years and over, earning								
Under $6	12.2	9.1				10.1	25.0	15.0
$6 and under $8	65.9	59.1	40.0			56.0	39.3	50.6
$8 and over	21.9	31.8	60.0	100.0		33.9	35.7	34.4
Total	100.0	100.0	100.0	100.0		100.0	100.0	100.0

It seems probable that a girl entering a difficult trade like this at such an early age does not persist in it for a year unless she has either a natural aptitude for it, or an amount of energy and persistence which would be likely to bring her to the front. Those entering it at a more mature age do not require so much of these qualities to remain in it, and hence are not a picked group, as these earlier ones seem to be.

At the end of the third year those who entered between the ages of 16 and 18 show the most favorable wage distribution. This is true for the group as a whole, for those as a whole who have remained in their own trades, and for those who have entered other occupations, but when those remaining in their own trades are considered trade by trade some irregularities appear. It is true of the dressmakers and milliners, but for the cloth and straw machine operators this group makes a poorer showing than either of the others. On the whole,

the table seems to bear out the contention of those who hold that it is better for a girl not to enter her trade until she is at least 16.

EFFECT ON WAGES OF TRADE-TRAINED GIRLS.

Turning to the trade-trained girls, the following table shows that reports as to wages and age at beginning work were obtained for 187 still working at the end of the first year after entering the industrial world and for 136 working at the end of the third year. These two groups show a somewhat greater divergence in the proportions beginning work at each age than appeared between the similar groups of trade-school girls. Of those working at the end of the first year 40.6 per cent had begun under 16 years of age, 40.1 per cent at 16 but under 18, and 19.3 per cent at 18 or over. Of those working at the end of the third year, 48.5 per cent had begun work while in the youngest age group, 38.2 per cent in the second, and 13.2 per cent in the third.

TABLE 77.—NUMBER AND PER CENT OF TRADE-TRAINED GIRLS BEGINNING WORK AT SPECIFIED AGE IN SPECIFIED OCCUPATIONS AND EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEAR'S EXPERIENCE.

NUMBER.

Years of experience, age at beginning work, and classified weekly wages.	In trade for which trained.			In other occupations.	Total.
	Dressmaking.	Cloth machine operating.	Total.		
END OF FIRST YEAR.					
14 and under 16 years, earning—					
Under $6	29	13	42	13	55
$6 and under $8	4	9	13	3	16
$8 and over	1	1	2	3	5
Not reported	2		2	1	3
Total	36	23	59	20	79
16 and under 18 years, earning—					
Under $6	17	11	28	6	34
$6 and under $8	8	13	21	7	28
$8 and over	5	5	10	3	13
Not reported	1	1	2		2
Total	31	30	61	16	77
18 years and over, earning—					
Under $6	7	8	15	1	16
$6 and under $8	8	8	16		16
$8 and over	2	1	3	1	4
Not reported	1		1		1
Total	18	17	35	2	37
Grand total	85	70	155	[1] 38	[1] 193
END OF THIRD YEAR.					
14 and under 16 years, earning—					
Under $6	11	7	18	4	22
$6 and under $8	9	10	19	7	26
$8 and over	7	9	16	2	18
Not reported	2		2		2
Total	29	26	55	13	68

[1] Not including 1 earning $6 and under $8 whose age at beginning work was not reported.

TABLE 77.—NUMBER AND PER CENT OF TRADE-TRAINED GIRLS BEGINNING WORK AT SPECIFIED AGE IN SPECIFIED OCCUPATIONS AND EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEAR'S EXPERIENCE—Concluded.

NUMBER—Concluded.

Years of experience, age at beginning work, and classified weekly wages.	In trade for which trained.			In other occupations.	Total.
	Dressmaking.	Cloth machine operating.	Total.		
END OF THIRD YEAR—concluded.					
16 and under 18 years, earning					
Under $6....	2	3	5	...	5
$6 and under $8	6	7	13	.....	13
$8 and over	14	16	30	4	34
Not reported....	1	1	2	.	2
Total	23	27	50	4	54
18 years and over, earning					
Under $6...	2		2	1	3
$6 and under $8	2	3	5		5
$8 and over	5	5	10		10
Not reported....					
Total	9	8	17	1	18
Grand total	[1] 63	59	122	18	[1] 140

PER CENT EARNING EACH CLASSIFIED AMOUNT.[2]

Years of experience, age at beginning work, and classified weekly wages.	Dressmaking.	Cloth machine operating.	Total.	In other occupations.	Total.
END OF FIRST YEAR.					
14 and under 16 years, earning					
Under $6	85.3	56.6	73.7	68.4	72.4
$6 and under $8	11.8	39.1	22.8	15.8	21.0
$8 and over	2.9	4.3	3.5	15.8	6.6
Total	100.0	100.0	100.0	100.0	100.0
16 and under 18 years, earning					
Under $6	56.7	37.9	47.5	37.5	45.3
$6 and under $8	26.7	44.8	35.6	43.8	37.4
$8 and over	16.6	17.3	16.9	18.7	17.3
Total	100.0	100.0	100.0	100.0	100.0
18 years and over, earning					
Under $6	41.2	47.1	44.1	50.0	44.4
$6 and under $8	47.1	47.1	47.1	......	44.4
$8 and over	11.7	5.8	8.8	50.0	11.2
Total	100.0	100.0	100.0	100.0	100.0
END OF THIRD YEAR.					
14 and under 16 years, earning					
Under $6	44.9	9.1	34.0	30.8	33.3
$6 and under $8	31.0	27.3	35.8	53.8	39.4
$8 and over	24.1	63.6	30.2	15.4	27.3
Total	100.0	100.0	100.0	100.0	100.0
16 and under 18 years, earning					
Under $6	9.1	11.5	10.4	....	9.6
$6 and under $8	27.3	26.9	27.1	....	25.0
$8 and over	63.6	61.6	62.5	100.0	65.4
Total	100.0	100.0	100.0	100.0	100.0
18 years and over, earning					
Under $6	22.2		11.8	100.0	16.7
$6 and under $8	22.2	37.5	29.4		27.8
$8 and over	55.6	62.5	58.8		55.5
Total	100.0	100.0	100.0	100.0	100.0

[1] Not including 1 girl earning $6 and under $8 whose age at beginning work was not reported.

[2] Based on number of girls whose wages were reported.

regardless of nativity. At the other extreme, however, the difference again becomes apparent. Of the Boston girls who were native-born white, 20.9 per cent began work at the age of 18 or over, but those of native-born parentage had 29.4 per cent in this group, against 15.2 per cent of those with foreign-born parents. Only 16 per cent of the foreign-born girls began work at the age of 18 or over. A surprisingly large proportion (45.8 per cent) of the Negro girls did not begin work until 18 or over. The difficulty usually experienced by young Negro girls in securing work in the ordinary juvenile employments in stores and factories probably explains their later entrance into industry.

FAMILY CONDITION OF TRADE-SCHOOL GIRLS.

The following table shows the number of the trade-school girls in the three cities who lived at home and elsewhere.

TABLE 115.—NUMBER AND PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL GIRLS HAVING SPECIFIED LIVING CONDITIONS

BOSTON.

Age at time of investigation.	Living at home			Boarding.			Receiving board as part of wage.[1]	All others.	Total.
	With family.	With relatives.	Total.	With relatives.	With others.	Total.			
Number of girls—									
Under 18 years	107	4	111	1	3	4			115
18 and under 20 years	165	12	177	4	1	5	1		183
20 and under 22 years	167	7	174	2	9	11	3	2	190
22 and under 24 years	116	9	125	5	10	15		1	141
24 years and over	86	4	90	2	12	14	2	3	109
Not living	4	1	5					1	6
Total	645	37	682	14	35	49	6	7	744
Per cent	86.7	5.0	91.7	1.9	4.7	6.6	0.8	0.9	100.0

WORCESTER.

Age at time of investigation.	Living at home			Boarding.	Receiving board as part of wage.	Total.
	With family.	With relative.	Total.			
Number of girls—						
Under 16 years	11	1	12			12
16 and under 18 years	64	4	68	2		70
18 and under 20 years	57	2	59	3		62
20 years and over	17	3	20	1	1	22
Total	149	10	159	6	1	166
Per cent	89.8	6.0	95.8	3.6	0.6	100.0

[1] Two boarded with relatives.

TABLE 78.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL TRAINED DRESSMAKERS EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEARS AT WORK, AFTER SPECIFIED MONTHS OF ATTENDANCE AT TRADE SCHOOL, BY GRADE OF PREVIOUS SCHOOLING.

NUMBER.

Years at work, months of attendance at trade school, and classified weekly wages.	Grammar school				High school.	Total.
	Graduates.	Nongraduates.	Unclassified.	Total.		
END OF FIRST YEAR.						
Under 6 months, earning—						
Under $6	5	2		7	4	11
$6 and under $8	3	2		5		[illegible]
$8 and over						
Not reported	1	2		3		3
Total	9	6		15	4	19
6 and under 12 months, earning—						
Under $6	28	13		41	9	50
$6 and under $8	30	10	1	41	18	59
$8 and over		1	1	2	3	5
Not reported	1			1	1	2
Total	59	24	2	85	31	116
12 and under 18 months, earning—						
Under $6	42	13	2	57	13	70
$6 and under $8	62	19	1	82	21	103
$8 and over	7	7		14	3	17
Not reported	1			1		1
Total	112	39	3	154	37	191
18 months and over, earning—						
Under $6	14	15	1	30		30
$6 and under $8	31	1		[illegible]	15	[illegible]
$8 and over	3	1		4	2	6
Not reported	2			2		2
Total	50	[illegible]	1	[illegible]	17	[illegible]
Grand total	230	[illegible]	6	[illegible]	89	415
END OF THIRD YEAR.						
Under 6 months, earning—						
Under $6						
$6 and under $8	2	2		4	2	6
$8 and over	1	1		4	1	5
Not reported	2	1		[illegible]		1
Total	7	4		11	[illegible]	16
6 and under 12 months, earning—						
Under $6	5	1		6		6
$6 and under $8	[illegible]	11		[illegible]	10	[illegible]
$8 and over	11	7	2	20	11	[illegible]
Not reported	1			1		1
Total	[illegible]	[illegible]	2	[illegible]	21	[illegible]
12 and under 18 months, earning—						
Under $6	[illegible]	1	1	[illegible]	1	10
$6 and under $8	[illegible]	12	1	[illegible]	10	[illegible]
$8 and over	1	14		[illegible]	11	[illegible]
Not reported	1	1		2		2
Total	[illegible]	[illegible]	2	[illegible]	[illegible]	[illegible]
18 months and over, earning—						
Under $6	2	1		3	1	4
$6 and under $8	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]
$8 and over	11	7		18	2	20
Not reported	2			2		2
Total	[illegible]	[illegible]	1	[illegible]	[illegible]	62
Grand total	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]

TABLE 78.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL TRAINED DRESSMAKERS EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF FIRST AND THIRD YEARS AT WORK, AFTER SPECIFIED MONTHS OF ATTENDANCE AT TRADE SCHOOL, BY GRADE OF PREVIOUS SCHOOLING—Concluded.

PER CENT EARNING EACH CLASSIFIED AMOUNT.[1]

Years at work, months of attendance at trade school, and classified weekly wages.	Grammar school.				High school.	Total.
	Graduates.	Nongraduates.	Unclassified.	Total.		
END OF FIRST YEAR.						
Under 6 months, earning—						
Under $6	62.5	50.0	....	58.3	100.0	68.7
$6 and under $8	37.5	50.0	....	41.7	....	31.3
$8 and over	....	....	....	....	....	....
Total	100.0	100.0	....	100.0	100.0	100.0
6 and under 12 months, earning—						
Under $6	58.3	54.2	....	55.4	30.0	48.1
$6 and under $8	41.7	41.7	50.0	41.9	60.0	47.1
$8 and over	....	4.2	50.0	2.7	10.0	4.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
12 and under 18 months, earning—						
Under $6	37.9	33.3	66.7	37.3	35.1	36.8
$6 and under $8	55.9	48.6	33.3	53.6	56.8	54.2
$8 and over	6.3	17.9	....	9.2	8.1	8.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
18 months and over, earning—						
Under $6	29.2	48.4	100.0	37.5	....	30.9
$6 and under $8	64.6	48.4	....	57.5	88.2	62.9
$8 and over	6.2	3.2	....	5.0	11.8	6.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
END OF THIRD YEAR.						
Under 6 months, earning—						
Under $6	....	....	....	....	....	....
$6 and under $8	40.0	66.7	....	50.0	66.7	54.5
$8 and over	60.0	33.3	....	50.0	33.3	45.5
Total	100.0	100.0	....	100.0	100.0	100.0
6 and under 12 months, earning—						
Under $6	12.8	5.3	....	10.0	....	7.4
$6 and under $8	59.0	57.9	....	56.7	47.6	54.3
$8 and over	28.2	36.8	100.0	33.3	52.4	38.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
12 and under 18 months, earning—						
Under $6	10.3	3.7	50.0	9.3	4.5	8.4
$6 and under $8	44.1	44.4	50.0	44.3	45.4	44.5
$8 and over	45.6	51.9	....	46.4	50.0	47.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
18 months and over, earning—						
Under $6	5.8	6.2	....	6.0	11.1	6.7
$6 and under $8	61.8	50.0	100.0	58.0	66.7	60.0
$8 and over	32.4	43.8		36.0	22.2	33.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

---

[1] Based on number of girls whose wages were reported.

Almost one-half (46 per cent) of the 415 girls employed at the end of the first year had attended trade school 12 months but less than 18. Almost three-fourths (71.6 per cent) had attended not less than 6 nor more than 18 months, and these girls constitute the normal or characteristic type. Of those attending trade school 6 months and less than 12, more than one-half the grammar-school pupils and less than one-third of the high-school pupils earned less than $6 at the end of their first year. Of those attending trade school 12 months but less than 18, a little more than one-third of the girls of all degrees of education, with some slight disadvantage for the grammar-school graduate, earned less than $6. No really direct or convincing evidence of relation between previous schooling and success is obvious, therefore, by the end of the first year out of trade school.

By the end of the third year wage groupings have changed considerably, and of those girls attending trade school 6 months but less than 18, which is the normal group, the high-school girl now has a somewhat more obvious advantage. One-third of the grammar-school pupils and more than one-half of the high-school pupils who attended trade school 6 months but less than 12 earned $8 or more. Forty-six (46.4) per cent of the grammar-school pupils and 50 per cent of the high-school pupils who attended trade school 12 months but less than 18 earned $8 or more. The difference in educational background seems to be of less importance on first entering the trade, for the primary demand made on the young worker is necessarily for perfection in manual skill, and all who have not this skill enter on very much the same basis. By the end of the third year, however, the girl has acquired the necessary manual skill, and then the requisite for advancement is the capacity to assume responsibility, to use judgment, to plan, to think, to adapt what she knows to new problems. The girl who is equipped with this power, whether through education or through other kinds of experience, is the one who succeeds. The large proportion of girls among those who have not graduated from grammar school who are earning the higher wages suggests that it is not previous education alone which develops this power.

WAGES OF TRADE-TRAINED DRESSMAKERS, CLASSIFIED ACCORDING TO PREVIOUS SCHOOLING.

The situation in regard to the effect of academic training upon the wage advancement of the trade-trained dressmakers differs in some respects from that just discussed among the trade-school dressmakers. The following table shows the wage grouping, at the end of the second and fourth years at work, of the trade-trained dressmakers classified according to their previous schooling.

TABLE 79.—NUMBER AND PER CENT OF TRADE-TRAINED DRESSMAKERS EARNING EACH CLASSIFIED WEEKLY AMOUNT AT END OF SECOND AND FOURTH YEARS AT WORK, BY GRADE OF PREVIOUS SCHOOLING.

NUMBER.

Previous schooling.	Girls earning classified wages at end of specified year.									
	Second year.					Fourth year.				
	Under $6	$6 and under $8	$8 and over.	Not reported.	Total.	Under $6	$6 and under $8	$8 and over.	Not reported.	Total.
Grammar school:										
Graduates	20	13	4	......	37	1	11	15	......	27
Nongraduates	7	3	6	¹1	17	......	5	5	²1	11
Unclassified	¹3	......	1	......	4	......	1	1	......	2
Total	30	16	11	1	58	1	17	21	1	40
High school	4	9	5	1	19	......	4	9	......	13
Uncertain schooling	......	1	1	³2	4	......	1	1	³2	4
Grand total	34	26	17	4	81	1	22	31	3	57

PER CENT EARNING EACH CLASSIFIED AMOUNT.[4]

Previous schooling.	Under $6	$6 and under $8	$8 and over.	Total.	Under $6	$6 and under $8	$8 and over.	Total.
Grammar school:								
Graduates	54.1	35.1	10.8	100.0	3.7	40.7	55.6	100.0
Nongraduates	43.8	18.7	37.5	100.0	......	50.0	50.0	100.0
Unclassified	75.0	......	25.0	100.0	......	50.0	50.0	100.0
Total	52.6	28.1	19.3	100.0	2.6	43.6	53.8	100.0
High school	22.2	50.0	27.8	100.0	......	30.8	69.2	100.0
Grand total	44.1	33.8	22.1	100.0	1.9	40.7	57.4	100.0

[1] One in Scotland.
[2] One in Italy.
[3] One in Russia.
[4] Based on the number of girls whose wages were reported.

Both at the end of the second and of the fourth years the high-school students have an advantage over the grammar-school girls in the matter of wages. Less than one-fourth of the high-school pupils against one-half of the grammar-school pupils earned less than $6 a week at the end of their second year. Practically seven-tenths (69.2 per cent) of the high-school pupils against 53.8 per cent of the grammar-school pupils earned $8 or more at the end of the fourth year. In this trade-trained group the previous schooling seems to have a more pronounced effect upon wages than among the trade-school girls, a fact which suggests that the trade school may play an important part in supplementing the inadequate preparation of the girls of a lower educational standard. In general, among both trade-trained and trade-school dressmakers, the girl with more preliminary education appears to have an advantage, though the comparatively small number in the trades who have gone beyond the grammar school provide small basis for conclusions.

WAGES AND LENGTH OF WORKING SEASON.

The real significance of weekly wages, however, lies in the number of weeks in the year they are received. The sewing trades for which the school trains are highly seasonal, and unemployment or irregularity of employment constitutes one of the most vigorous sifting influences. Less seasonal trades, even at a lower weekly rate, not only may provide a larger annual income, but do not subject their workers to the strain and uncertainty of irregular employment or none at all.

LENGTH OF SEASON, BY TRADES, FOR 533 TRADE-SCHOOL GIRLS.

The following table shows for 533 [1] trade-school girls employed at the time of the investigation the number of months of employment they had had during a year.

TABLE 80.—NUMBER AND PER CENT OF BOSTON TRADE-SCHOOL GIRLS EMPLOYED IN SPECIFIED TRADES EACH CLASSIFIED NUMBER OF MONTHS DURING A FULL YEAR.

NUMBER.[2]

Months employed during year.	Sewing trades.					Other trades.	Total.
	Dressmaking.	Millinery.	Power machine operating on—		Total.		
			Cloth.	Straw hats.			
Under 3 months	3	3	2	1	9	6	15
3 and under 4 months	1	1	1	2	5	10	15
4 and under 5 months	2	1		6	11	2	13
5 and under 6 months	[illegible]	7	1	9	22	7	29
6 and under 7 months	10	5	1	4	20	8	28
7 and under 8 months	5	4	2		11	7	18
8 and under 9 months	30	5	1		45	9	54
9 and under 10 months	67	2	[illegible]	2	76	9	85
10 and under 11 months	40	8	1	1	52	11	63
11 and under 12 months	22	9	8	2	41	33	74
12 months	8	3	9	1	21	94	115
Not reported	11	2			13	8	21
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	533

PER CENT AT WORK EACH SPECIFIED NUMBER OF MONTHS.[3]

Months employed during year.	Dressmaking.	Millinery.	Cloth.	Straw hats.	Total.	Other trades.	Total.
Under 3 months	1.5	6.1	6.5	[illegible]	2.9	3.0	2.9
3 and under 4 months	[illegible]	2.1	[illegible]	[illegible]	1.6	5.0	2.9
4 and under 5 months	1.0	4.1		[illegible]	3.5	1.0	2.5
5 and under 6 months	2	14.5	[illegible]	[illegible]	7.0	3.4	5.6
6 and under 7 months	5.0	10.4	3.0	12	6.4	4.0	5.5
7 and under 8 months	2	8.1	[illegible]		3.5	3.0	3.4
8 and under 9 months	19.3	10.4	[illegible]		14.1	4.6	10.5
9 and under 10 months	[illegible]	4.2	[illegible]	[illegible]	24.0	4.4	15.6
10 and under 11 months	[illegible]	12	9.1	9.1	[illegible]	[illegible]	12.3
11 and under 12 months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.5
12 months	[illegible]	6.1	[illegible]	9.1	[illegible]	[illegible]	22.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

---

[1] 21 of the [illegible]
[2] Including [illegible]
[3] Based on number [illegible] during the year was reported.

The seasonal character of the sewing trades appears very plainly here. Thirty-six (36.8) per cent of those remaining in the sewing trades, against 70.5 per cent of those who had gone into other occupations worked 10 months or more—most excellent evidence as to why the girls go into other occupations. Forty per cent of the girls in the sewing trades worked 9 but less than 11 months, while 48.2 per cent of those in other occupations worked 12 months. Among the sewing trades, the millinery trades have the shortest seasons, 58.2 per cent of the custom milliners working less than nine months and 68.6 per cent of the straw machine operators not exceeding seven months. Those of the straw machine operators having longer seasons have usually been in factories which made velvet hats in the summer, and owing to this combination a few worked most of the year. Some of the milliners who worked nine months or more were employed in department stores or wholesale houses and were shifted from one department to another where most needed. More than one-half of the cloth machine operators worked 11 months or more in the factory, but for them dull seasons mean less work and smaller wages, not necessarily absolute unemployment. Among the dressmakers one-third worked 9 months but less than 10, and more than one-third (34.6 per cent) worked 10 months or more.[1]

WAGES OF TRADE-SCHOOL GIRLS TRAINED FOR SEWING TRADES, CLASSIFIED ACCORDING TO LENGTH OF WORKING SEASON AND TRADES.

Table 81 shows the wage grouping of the girls, classified according to the number of months worked.

Preceding discussions have shown that girls in the millinery trades earned higher average wages than those in the clothing trades. This table shows the same situation, but also shows how heavily these higher wages are discounted by the shorter seasons. Of the girls following their own trades, 58.8 per cent in the clothing trades against 65 per cent in the millinery trades earned $8 or more a week,[2] but 86.3 per cent in the clothing trades against 43.8 per cent in the millinery trades had a working season of eight months or more. Thirty per cent of those in the millinery trades against 9 per cent of those in the clothing trades earned $12 or over a week, but only 41.7 per cent of this wage group in the millinery trades worked 10 months or more against 61.9 per cent of those in the clothing trades. Real earnings can not be deduced with certainty from this table, since, as already mentioned, in many of the clothing trades there may be slack work and lower wages without absolute unemployment, but taking the figures of this table at their face value, those in the millinery trades can hardly be said to have much advantage over those in the clothing trades, in spite of the lower nominal wages paid in the latter.

---

[1] For further discussion, see Bul. No. 193, United States Bureau of Labor Statistics.

[2] Percentages based on the number for whom both length of season and wages are reported.

TABLE 81.—NUMBER OF BOSTON TRADE-SCHOOL GIRLS TRAINED FOR SEWING TRADES EMPLOYED EACH CLASSIFIED NUMBER OF MONTHS DURING FULL YEAR, AND EARNING CLASSIFIED WAGES.

GIRLS TRAINED FOR CLOTHING TRADES.[1]

Months at work during a full year.[2]	Girls whose weekly wages were—						Total.
	Under $6.	$6 and under $8.	$8 and under $10.	$10 and under $12.	$12 and over.	Not reported.	
Working in their own trade:							
Under 6 months	3	8	3			1	15
6 and under 8 months	1	8	7	2			18
8 and under 10 months	2	46	44	15	5		112
10 and under 12 months		21	26	12	14		73
12 months	2	5	6	1	2	1	17
Not reported	1	1	1	1	1	6	11
Total	9	89	87	31	22	8	246
Working in other occupations:							
Under 6 months	1	8	5		3	2	19
6 and under 8 months	6	1	5				12
8 and under 10 months	1	4	2		2		9
10 and under 12 months	5	11	3	2	4		25
12 months	5	14	17	8	8	3	55
Not reported	2	1	2				5
Total	20	39	34	10	17	5	125
Grand total	29	128	121	41	39	13	371

GIRLS TRAINED FOR MILLINERY TRADES.[3]

Months at work during a full year.[2]	Under $6.	$6 and under $8.	$8 and under $10.	$10 and under $12.	$12 and over.	Not reported.	Total.
Working in their own trade:							
Under 6 months	2	14		1	9		26
6 and under 8 months		4	3	2	4		13
8 and under 10 months		5	2	1	1		9
10 and under 12 months		6	6	1	7		20
12 months		1	1	1	3		6
Not reported	1					1	2
Total		30	18	11	21	1	82
Working in other occupations:							
Under 6 months	1	3			1	1	6
6 and under 8 months	1	1	1				3
8 and under 10 months		2	5	2			9
10 and under 12 months	1	6	9	3			19
12 months		9	18	5	7	1	40
Not reported		1				2	3
Total	3	22	33	10	8	4	80
Grand total	9	69	48	21	33	5	162

---

[1] [illegible] sewing trades.

[2] The past year was used to insure a more nearly correct statement of the length of time actually worked.

[3] Those in millinery and straw machine operating.

The girls who have gone out from their own trades seem, on the whole, to have improved their situation by doing so, when the number of weeks worked is taken into consideration. Those who have left the clothing trades show a larger proportion in both the lowest and the highest wage groups than is found among those remaining in their trade, but the percentage receiving less than $8 is slightly larger among those who have left. On the other hand those who have left have the advantage in length of working season, 67 per cent having been employed for 10 months or more against 38.2 per cent of those remaining in their trades. Among the girls who have left the millinery trades the proportion earning $8 or over is almost the same as among those who have remained in the trades, 64 per cent and 65 per cent, respectively, but those remaining in the trades show a much larger per cent earning $10 or over. The girls who have left the trades, however, have a very decided advantage in the length of working season; more than half (52 per cent) were employed for 12 months and 25.3 per cent were employed for 10 months but less than 12. Among the girls remaining in their trades these proportions were, respectively, 7.5 per cent and 25 per cent.

SUMMARY.

In summarizing this survey of the wages earned by the girls trained in the trade school, two important considerations must be kept in mind. The weekly wage reported is a nominal weekly wage decreased (1) by absence and occasional days out and (2) by seasonal fluctuation. With this in mind, it appears that an average weekly wage of $8 is reported by the end of the third year out of trade school by the girls who have used their training. The time of reaching this average varies for the different trades. Not until the fourth year did one-half or more of the dressmakers trained in the trade school, as well as of those who acquired their training in the trade, reach a weekly wage of $8 or more, but both trade-school and trade-trained workers in the cloth power-machine operating trades reached this standard in their third year. The trade-school dressmaker maintains a slight advantage over the trade-trained worker, but the power-machine operators show very similar wage returns regardless of their training. The year spent in the trade school, while undoubtedly of great advantage to the girl, can not be translated into terms of money as a year's advantage over the girl who has come up through the trade, a condition which is true of many other forms of education. The real advantage enjoyed by the trade-school girl is in her early experience she is lifted over the unskilled, unrelated processes paying a low wage, and put at once on the processes which lead directly to advancement in skill and wage. However, the recent development of secondary-trade training must be kept in mind, and even a slight advantage should prove a stimulus to industrial educators for greater efforts and accomplishments. The regulation of the placement wage of the girls trained in the Boston Trade School during the last few years gives them an initial financial advantage but does not insure an automatic advance over that placement wage until they have developed the maturity and skill to justify advancement.

In general, the girls who remain in their trades show better wage returns than the girls who leave them for other occupations, but the shorter seasons in the sewing trades doubtless neutralize the apparent advantage. The kind of occupation entered by the girls leaving their own trades provides an interesting index to personal types and also to wage opportunities. About one-half the dressmakers and milliners leaving their trade went into clerical and professional service. Two-fifths of the dressmakers and one-tenth of the milliners went into manufactures and domestic service, which drew the majority of the cloth machine operators who had left their trades. Search for the cause of this difference reveals that the milliners rank first in educational equipment, the dressmakers second, and the power-machine operators third.

The relation of education to advancement in the sewing trades is not very obvious, perhaps because comparatively few of the workers have more than a grammar-school education. From available data, the high-school girl seems to start on much the same wage basis as the girl with less education, because the primary requisite is manual skill. By the end of the third year, however, when the opportunity for original thought and action is opened up for the girl who has the ability to utilize it, the high-school girl shows some advantage over the grammar-school graduate. The success of the grammar-school nongraduate, however, raises the question of how far the high-school girl's success may be credited to academic schooling. Comparison of the relation between schooling and the wages earned by the trade-school and the trade-trained girls seems to suggest that the trade school performs an important service in supplementing the equipment of the girl of lower educational standard, turning out a homogeneous group which shows much less variation in wages than is found in the trade-trained group.

Experience and maturity are important factors in determining wages in trades involving manual skill and "common sense," as employers term it, and the correlation between these and wages is obvious. At the time of beginning work greater maturity showed correspondingly higher wage returns, but by the end of the third year the girl beginning at 18 years or more had not maintained her precedence over the girl beginning work at 16 years. The girl beginning work under 16 years, however, is a laggard in regard to wages at the end of both the first and the third year, a fact which yields interesting support to the argument in favor of raising the present age limit for beginning work.

CHAPTER V.—INDUSTRIAL EXPERIENCE AND WAGES OF WORCESTER AND CAMBRIDGE TRADE-SCHOOL GIRLS.

WORCESTER GIRLS' TRADE SCHOOL.

Since the Worcester Trade School was not established till September, 1911, and since its course requires two years for completion, the working experience of its pupils at the time of the investigation (February-March, 1915) was necessarily too short to throw much light on their industrial efficiency. The study of the Worcester Trade School, therefore, is valuable chiefly because of the school's peculiar problems and its method of solving them; for Worcester has established a trade school to train girls primarily for the custom sewing trades, and yet, so far as trade opportunities for any large number of girls are concerned, these trades are practically nonexistent in the city. Moreover, this is a situation likely to confront the new trade schools established in practically any medium-sized city. The Worcester school, taking the general plan of a trade school established to meet the needs of a particular large city, has striven to adjust it to the local needs of a community with very different conditions and trade opportunities. Its effort to make this adjustment is the chief matter of interest in the school's history.

AGE AND INDUSTRIAL DISTRIBUTION OF GIRLS STUDIED.

At the time of the investigation, 166 pupils of the Worcester Trade School had either made use of their trade, or had attended the school for at least nine months, although after leaving it they had not used their trade. The following table shows the age distribution of these girls, classified as to whether or not they were earning wages, and if they were, whether in their own trade or in some other occupation:

TABLE 82.—NUMBER AND PER CENT IN SPECIFIED AGE GROUPS AMONG WORCESTER TRADE-SCHOOL GIRLS WHO WERE EARNING AND NOT EARNING WAGES.

Age group.	Number and per cent in specified age groups of girls who were—							
	Earning wages in their own trade.		Earning wages in other occupations.		Not earning wages.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	[illegible]	[illegible]	2	[illegible]	[illegible]	12.[illegible]	12	7.2
16 and under 18 years	[illegible]	[illegible]	25	[illegible]	22	[illegible]	70	42.2
18 and under 20 years	[illegible]	[illegible]	[illegible]	[illegible]	17	[illegible]	62	[illegible]
20 years and over	[illegible]	[illegible]	10	17.5	2	[illegible]	22	[illegible]
Total	62	100.0	[illegible]	100.0	47	100.0	166	100.0

cars. The immaturity of these young girls, 62.6 per cent entering the trade school before the age of 16,[a] together with the expense involved for car fares and luncheons, while attending school, makes it seem remarkable that so many make the effort at all.

DISTANCE FROM SCHOOL AND PERSISTENCE IN ATTENDANCE.

The following tables show the relation between the distance from which the girls come to the school and both their persistence in the school and their tendency to make use of their training after leaving:

Table 103.—NUMBER AND PER CENT OF GIRLS ATTENDING BOSTON TRADE SCHOOL EACH SPECIFIED LENGTH OF TIME, BY LOCALITY OF RESIDENCE.

NUMBER.

Locality of residence.	Girls attending each specified number of months—							Total.
	Under 3	3 and under 6	6 and under 9	9 and under 12	12 and under 18	18 and over.	Not reported.	
Boston	499	204	201	142	299	146	146	1,637
Suburbs	78	51	42	37	72	17	26	323
Outside towns	10	8	12	8	13	4	4	59
Outside of State	1	....	....	1	1	....	....	3
Not reported	5	1	5	3	2	2	4	22
Total	593	264	260	191	387	169	180	2,044

PER CENT.[1]

Locality of residence.	Under 3	3 and under 6	6 and under 9	9 and under 12	12 and under 18	18 and over.	Not reported.	Total.
Boston	33.5	13.7	13.4	9.5	20.0	9.8	....	100.0
Suburbs	26.3	17.2	14.1	12.5	24.2	5.7	....	100.0
Outside towns	18.2	14.5	21.8	14.5	23.6	7.3	....	100.0
Outside of State	33.3	....	....	33.3	33.3	....	....	100.0
Not reported	27.8	5.6	27.8	16.7	11.1	11.1	....	100.0
Total	31.8	14.2	13.9	10.2	20.8	9.1	....	100.0

[1] Based on number of girls whose length of attendance was reported.

Table 104.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS USING AND NOT USING THEIR TRADE, BY LOCALITY OF RESIDENCE.

Locality of residence.	Number.				Per cent.			
	Using their trade.	Not using their trade but attending the school—		Total.	Using their trade.	Not using their trade but attending the school—		Total.
		9 months or more.	Less than 9 months.			9 months or more.	Less than 9 months.	
Boston	602	109	926	1,637	36.8	6.6	56.6	100.0
Suburbs	144	17	162	323	44.6	5.3	50.1	100.0
Outside towns	35	4	20	59	59.3	6.8	33.9	100.0
Outside of State	2	....	1	3	66.7	....	33.3	100.0
Not reported	5	4	13	22	22.7	18.2	59.1	100.0
Total	788	134	1,122	2,044	38.6	6.6	54.9	100.0

---

[a] See Table 5, p. 22.

Evidently the distance from school and the consequent effort involved in coming have a direct bearing on the girls' persistence in their courses. One-third of the girls living in Boston who reported on this subject remained less than three months, as compared with 26.3 per cent from the suburbs, and 18.2 per cent from outside cities and towns. Inversely, an increasing proportion remained nine months or more, with the increasing distance from the school. Only 39.3 per cent of the girls living in Boston remained nine months or more, as compared with 42.4 per cent from the suburbs, and 45.4 per cent from the outside towns and cities.

DISTANCE FROM SCHOOL AND USE OF TRADE.

Again, an obvious relation between effort involved in securing the training and seriousness of purpose appears in the proportions entering the trade for which they were trained. A little more than one-third, 36.8 per cent, of the girls living in Boston used their training in a wage-earning capacity; 44.6 per cent of those living in the suburbs and 59.3 per cent of those in outside cities and towns entered the trade for which they were trained.

The location of the girl's home may determine her opportunity to use her trade. Those living at a considerable distance from the city are handicapped because they must either find openings in the vicinity of their homes, or be at considerable expense to take advantage of the wider opportunities in the city itself. The sewing trades, for instance, are but little developed outside the city and very few suburban and country dressmakers employ young girls. As most of these trade-school girls are quite young on leaving the school (42.9 per cent were under 16 and 68.1 per cent under 17 [1]), they are usually too immature and inexperienced to do the independent dressmaking and millinery, which is the characteristic method of production outside a large city,[2] and comparatively few factories making ready-made clothing or straw hats are now found in the suburbs, though there is a tendency recently to build such factories in the suburban sections of Boston.

Some girls have been able to secure positions in the vicinity of their homes, but others are in the position of the girl who "must remain at home at least one year because she was too young to live in the city among strangers and if she had worked in her trade she would have had to board in town in order to get to work on time in the morning." The most successful girl trained in millinery in the Boston Trade School lived near Worcester and has never worked in Boston, but she was a high-school graduate, and although only 16 years of age on leaving school, was able to take a $10 position as milliner in a general store in a small town on first leaving the trade school. This was, of course, unusual and may have been partially due to her early training in sewing with her mother, who was a dressmaker.

---

[1] See Table 11, p. 30.

[2] For further discussion of the different types of production, see Dressmaking as a trade for women in Massachusetts, Bul. No. 193, United States Bureau of Labor Statistics.

NATIVITY OF TRADE-SCHOOL GIRLS.

Since the tendency of a secondary school is to attract a selected group, that is, from families which do not have to send their girls to work at 14 years of age, it is important to discover how far the type of girl coming for trade training conforms to the type already in the trade; for her subsequent stability in the trade will probably depend largely on the extent to which she finds her surroundings congenial.

The following tables show how, in the matter of nativity, the girls trained in the Boston and Worcester schools for the sewing trades compare with the total women in those trades, as shown by United States census figures:

TABLE 105.—NUMBER AND PER CENT OF WOMEN OF SPECIFIED NATIVITY IN THE SEWING TRADES IN BOSTON AND WORCESTER ACCORDING TO THE CENSUS OF 1910.

NUMBER.

Nativity.	Boston.[1]				Worcester.[2]			
	Dressmaking.	Millinery.	Machine operating.	Total.	Dressmaking.	Millinery.	Machine operating.	Total.
Native white:								
Native parentage	1,465	545	537	2,547	247	88	352	687
Foreign parentage	1,801	803	1,348	3,952	296	177	1,129	1,602
Total	3,266	1,348	1,885	6,499	543	265	1,481	2,289
Foreign-born white	3,016	474	2,167	5,657	246	42	645	933
Negro	283	17	8	308	11	......	6	17
All other	3	1	3	7	......	......	......	......
Grand total	6,568	1,840	4,063	12,471	800	307	2,132	3,239

PER CENT OF EACH NATIVITY.

Nativity.	Boston.[1]				Worcester.[2]			
	Dressmaking.	Millinery.	Machine operating.	Total.	Dressmaking.	Millinery.	Machine operating.	Total.
Native white:								
Native parentage	22.3	29.6	13.2	20.4	30.9	28.7	16.5	21.2
Foreign parentage	27.4	43.6	33.2	31.7	37.0	57.6	53.0	49.5
Total	49.7	73.2	46.4	52.1	67.9	86.3	69.5	70.7
Foreign-born white	45.9	25.8	53.3	45.3	30.7	13.7	30.2	28.8
Negro	4.3	.9	.2	2.5	1.4	......	.3	.5
All other	.1	.1	.1	.1	......	......	......	......
Grand total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] From Thirteenth Census of the United States, 1910, Vol. IV, Population, p. 540.
[2] Idem, p. 607.

TABLE 106.—NUMBER AND PER CENT OF WOMEN OF SPECIFIED NATIVITY AMONG THOSE TRAINED IN THE SEWING TRADES IN BOSTON AND WORCESTER TRADE SCHOOLS AND USING THEIR TRADES.

NUMBER.

Nativity.	Women using their trades after training in—							
	Boston Trade School.				Worcester Trade School.			
	Dressmaking.	Millinery.	Machine operating.	Total.	Dressmaking.	Millinery.	Machine operating.	Total.
Native white:								
Native parentage	104	56	51	211	75	25	26	126
Foreign parentage	228	79	80	387	118	22	31	171
Total	332	135	131	[1] 598	193	47	57	297
Foreign-born white	37	12	16	65	16	2	3	21
Negro	36	3	3	42	7	1	....	8
All others [2]	18	7	3	28	8	3	1	12
Grand total	423	157	153	[3] 733	224	53	61	[4] 338

PER CENT OF EACH NATIVITY.

Nativity.	Boston Dressmaking.	Boston Millinery.	Boston Machine operating.	Boston Total.	Worcester Dressmaking.	Worcester Millinery.	Worcester Machine operating.	Worcester Total.
Native white:								
Native parentage	24.6	35.7	33.3	28.8	33.5	47.1	42.6	37.3
Foreign parentage	53.9	50.3	52.3	52.8	52.7	41.5	50.8	50.5
Total	78.5	86.0	85.6	81.6	86.2	88.7	93.4	87.8
Foreign-born white	8.7	7.6	10.4	8.9	7.1	3.8	4.9	6.2
Negro	8.5	1.9	2.0	5.7	3.1	1.9	....	2.4
All others	4.3	4.5	2.0	3.8	3.6	5.7	1.7	3.6
Grand total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Not including 21 whose fathers' birthplaces were not reported.
[2] These are girls whose birthplace or whose fathers' birthplace was not reported.
[3] Not including 11 others visited who were employed in cooking and design, of whom 7 were native-born white of native parentage, 1 native-born white of foreign parentage, and 3 Negroes.
[4] Not including 5 for whom no data were secured as to courses taken.

Almost one-half, 45.9 per cent, of all the dressmakers and seamstresses in Boston are foreign-born white as compared with only 8.7 per cent of the 423 trade-school girls who have been sent from the school into this trade. That is, the trade school is training a highly selected group, from the standpoint of nativity, so that a girl frequently leaves her position or the trade because "I didn't like the class of girls" or "Mother didn't want me to be with those girls." More than three-fourths, 78.5 per cent, of the trade-school girls going out into the dressmaking trade are native-born white as compared with less than one-half, 49.7 per cent, already in the trade who are native-born white. The proportion of girls who are native white of native parentage is practically the same in both groups, but while the predominant type in the trade is foreign born, the predominant type going out from the trade school is one generation Americanized, being native born but with foreign-born parents. A disproportionately large number of Negroes also came to the trade school for dressmaking, 8.5 per cent, as compared with 4.3 per cent in the trade. These colored girls find themselves seriously handicapped in securing positions in dressmaking, and it is practically impossible for them to secure work in the power-machine sewing trades.

The girls trained in millinery approach more nearly to the type already in the trade, although the proportion of Negroes is larger (1.9 per cent trained in the school and 0.9 per cent in the trade) and the foreign-born white in the trade constitute a much larger proportion (25.8 per cent) than is true of the trade-school group, in which they form 7.6 per cent.

The girls trained in power-machine operating show the largest proportion (10.4 per cent) of foreign born of any of the trade groups in the school, but even this proportion is very small in comparison with the 53.3 per cent of foreign born in the machine-operating trades. While 33.3 per cent of the trade-school girls trained and going out into the operating trades were native born of native parentage, only 13.2 per cent in the trade itself were of this group.

In Worcester also girls coming to the trade school for training in the sewing trades show a higher proportion of native born, 87.8 per cent, than is discovered in these trades as a whole, where they form 70.7 per cent. More than four-fifths, 86.2 per cent, of the girls trained in dressmaking were native-born white as compared with 67.9 per cent in the trade. The pupils in millinery, 88.7 per cent native white, however, are typical of the trade of the city with 86.3 per cent native white. The greatest difference appears in the power-machine operators, 93.4 per cent who took the training in the school as compared with 69.5 per cent in the trade being native white. Forty-two (42.6) per cent of the sewing-machine operators in the school and only 16.5 per cent of those in the trade had native-born parents.

For the girls of the Cambridge Trade School, the comparison of nativity is necessarily limited to those trained for dressmaking, for the census table used does not give the nativity data for milliners in Cambridge, and though it does give them for women engaged in "personal and domestic service," this group does not correspond to the group of girls trained for cooking. But for the women engaged in dressmaking in Cambridge, and for the girls trained in dressmaking in the Cambridge Trade School, the number and proportion in the different nativity groups are as follows:

TABLE 107.—NUMBER AND PER CENT OF EACH SPECIFIED NATIVITY AMONG WOMEN IN THE DRESSMAKING TRADE IN CAMBRIDGE AND AMONG GIRLS TRAINED IN DRESSMAKING IN THE TRADE SCHOOL.

Nativity.	Women in dressmaking in Cambridge.[1]		Girls trained in dressmaking in Cambridge Trade School.	
	Number.	Per cent.	Number.	Per cent.
Native white:				
Native parentage..	154	20.2	31	46.3
Foreign parentage.	197	26.2	21	31.3
Total...........	351	46.4	52	77.6
Foreign-born white..	324	42.8	6	9.0
Negro...............	80	10.6	7	10.4
All others...........	2	.2	2	3.0
Grand total.....	757	100.0	67	100.0

[1] From Thirteenth Census of the United States, 1910, Vol. IV, Population, p. 544.

The variation between the two groups approaches more nearly to that found in Boston than in Worcester. Forty-six (46.4 per cent) in the trade and 77.6 per cent in the school group are native born; 42.8 per cent in the trade and 9 per cent in the school group are foreign born. In Cambridge Negroes form a much larger proportion of the trade group than in Boston—10.6 per cent against 4.3 per cent—and they are correspondingly more numerous among the trade-school dressmakers, where they form almost exactly the same proportion as in the trade, 10.4 per cent.

Comparison of the three cities seems to show that it is a "trade-school type" rather than a "trade type" which is attracted for the training offered by the trade school. While but 52.1 per cent of the women engaged in the sewing trades in Boston and 70.7 per cent in Worcester were native white, more than four-fifths of the girls attending the two trade schools, 81.6 per cent in Boston and 87.8 per cent in Worcester, were native white. Almost one-half, 45.3 per cent, of the women in the sewing trades in Boston and more than one-fourth, 28.8 per cent, in Worcester were foreign born, but both schools drew a decidedly small proportion (8.9 per cent in Boston and 6.2 per cent in Worcester) from the foreign born, probably on account of the economic pressure in the family of the recent immigrant. The larger proportion of Negroes than is characteristic of the trade likewise appeared in both schools.[1]

Combining all born in this country (regardless of color), about nine-tenths of the girls in each of the three trade schools were native born and about one-tenth foreign born. The largest proportion of the foreign born came from non-English speaking countries. About two-fifths of the girls had native-born parents, a larger proportion in Cambridge and a smaller proportion in Boston. Over 63 (63.7) per cent in Boston, 58.9 per cent in Worcester, and 41.5 per cent in Cambridge had foreign-born parents. About equal proportions of the parents came from English and non-English speaking countries.

---

[1] Nativity by occupations is not given for Cambridge.

TABLE 108.—NUMBER AND PER CENT OF EACH NATIVITY IN TOTAL POPULATION 15 TO 20 YEARS OF AGE, AMONG CHILDREN OF THESE AGES IN SCHOOLS, AND AMONG TRADE-SCHOOL GIRLS IN BOSTON, WORCESTER, AND CAMBRIDGE.

NUMBER.

Nativity.	Boston.[1]					Worcester.			Cambridge.		
	Population 15 to 20 years of age.		Girls going out from the trade school.			Population 15 to 20 years of age.		Girls going out from the trade school.	Population 15 to 20 years of age.		Girls going out from the trade school.
	Total.	Attending school.	Total.	Using trade.	Not using trade.[2]	Total.	Attending school.		Total.	Attending school.	
Native white:											
Native parentage..	8,109	3,567	263	218	45	4,330	1,835	126	2,633	1,217	46
Foreign parentage.	17,528	5,729	438	388	50	7,970	2,152	170	5,614	1,728	28
Not reported......	......	......	21	21	......	......	......	8	......	......	3
Total............	25,697	9,296	722	627	95	12,300	3,987	304	8,247	2,945	77
Foreign-born white....	9,287	1,647	70	65	5	3,551	492	22	2,199	318	9
Negro..............	613	193	47	45	2	112	26	8	475	171	11
All others.............	......	......	10	7	3	......	......	9	......	......	16
Grand total......	[3]35,597	[3]11,136	849	744	105	[4]15,963	[4]4,505	343	[5]10,921	3,434	113

PER CENT OF EACH SPECIFIED NATIVITY.[6]

Native white:											
Native parentage..	22.9	32.0	31.3	29.6	44.1	27.1	40.7	37.7	24.1	35.4	47.4
Foreign parentage.	49.3	51.5	52.2	52.6	49.0	50.0	47.8	50.9	51.4	50.4	28.9
Not reported......	......	......	2.5	2.8	......	......	......	2.4	......	......	3.1
Total............	72.2	83.5	86.0	85.0	93.1	77.1	88.5	91.0	75.5	85.8	79.4
Foreign-born white....	26.1	14.8	8.4	8.9	4.9	22.2	11.0	6.6	20.1	9.3	11.3
Negro..............	1.7	1.7	5.6	6.1	2.0	.7	.5	2.4	4.4	4.9	9.3
Grand total......	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] United States Census, 1910, Vol. I, Population, pp. 1160, 1171, 1173.
[2] After attending trade school 9 months or more.
[3] Totals in census report are 35,600 and 11,137, respectively.
[4] Totals in census report are 15,964 and 4,506, respectively.
[5] Total in census report is 10,924.
[6] Excluding "All others."

Since the trade schools in two quite different cities draw a similar type of pupil from the standpoint of nativity, it is of interest to discover to what extent these girls who come for trade training are characteristic of the total group of about the same age who are attending school. The Boston Trade School records did not state nativity, so the comparison is restricted to the 849 girls personally visited, including all who used their training in a wage-earning capacity and all others who attended nine months or more. On the other hand, while the nativity of all the girls going out from the Worcester and Cambridge trade schools[1] is available, the census statistics of the nativity of the children 15 to 20 years of age attending school in these cities are not given separately for boys and for girls, but as about an equal number of boys and girls are reported the proportions are probably approximately correct. In the three cities the statistics for the whole group are those for 1909, while those from the school cover a period of several years grouping about this date. Under these conditions Table 108 gives the nativity of the children 15 to 20 years old in the general population of those in this age group attending school and of the trade-school girls studied.

---

[1] Not including 15 not located.

The girls attracted to the trade school are predominantly native white, this class being characteristic of the cities in which these schools are located; but, as might be expected, the trade school attracts a selected group. Thus, while 72.2 per cent of the children 15 to 20 years old in Boston are native white, 86 per cent of those going out from the trade school are in this group. In Worcester, 77.1 per cent of the children 15 to 20 years old are native white, but 91.0 per cent of the trade-school girls fall within this classification, showing also a selected group. In Cambridge, however, the trade-school group is more nearly typical of the whole 15 to 20 year old population, 75.5 per cent in the city and 79.4 per cent in the school being native white.

The question then arises: How representative of the school population of 15 to 20 years is the type attracted to the trade school? In respect to the native-born whites, the two groups are very similar in Boston and Worcester. In Boston, 83.5 per cent of the 15 to 20 year old children attending school and 86 per cent of the girls going out from the trade school are native white. In Worcester, 88.5 per cent of the children 15 to 20 years of age attending school and 91 per cent of the trade-school girls are native white. Similar proportions having native and foreign-born parents are also found in the two school groups in both cities. In Cambridge, however, while 85.8 per cent of the 15 to 20 year old school population are native-born white, only 79.4 per cent of the trade-school group fall within this classification. This difference is due partly to the proportionately large group of Negroes in the trade school.

An interesting difference appears between the 744 girls who used their training and the 105 who attended the Boston Trade School nine months or more and did not use the trade, 85 per cent of the former and 93.1 per cent of the latter being native born. Forty-four (44.1) per cent of those not using their training were native born of native parentage and only 4.9 per cent foreign born. Their reasons for never using their training suggest their incompatibility with the trade group; 28 per cent of those who gave their reasons ascribed their failure to enter the trade to lack of personal adjustment, 32 per cent to trade conditions, and 26 per cent to domestic causes.[1]

---

[1] See Table 43, p. 73.

ECONOMIC STATUS OF FAMILIES OF TRADE-SCHOOL GIRLS.

OCCUPATIONS OF FATHERS OF TRADE-SCHOOL GIRLS.

The father's occupation provides a rough index to the economic pressure at home, determining to some extent the girl's ability to attend school after the age of 14, and also her ability to continue in a skilled trade which, because of the small beginning wage, involves semidependence for some years. The census classification of occupations has been used, although this is rather broad. The following table shows the occupations, so far as they were learned, of the fathers of the girls in the four trade schools:

TABLE 109.—NUMBER AND PER CENT OF BOSTON, WORCESTER, CAMBRIDGE, AND SOMERVILLE TRADE-SCHOOL GIRLS WHOSE FATHERS WERE IN EACH SPECIFIED OCCUPATION.[1]

NUMBER.

Occupation of the father.	Boston.	Worcester.	Cambridge.	Somerville.	Total.
Unskilled labor	201	32	10	20	263
Personal and domestic service	164	20	7	5	196
Agriculture	28	8	1	2	39
Manufacturing industries	649	179	40	64	932
Transportation	71	8	2	13	94
Public service	34	11	1	4	50
Trade and business	177	21	9	20	227
Clerical occupations	69	8	1	5	83
Professional service	28	3	1	5	37
Retired	13	2	2	1	18
Not living or deserted	380	39	30	18	467
Not reported	230	12	9	15	266
Total	2.044	343	113	172	2,672

PER CENT WITH FATHERS IN SPECIFIED OCCUPATION.[2]

Occupation of the father.	Boston.	Worcester.	Cambridge.	Somerville.	Total.
Unskilled labor	11.1	9.7	9.6	12.7	10.9
Personal and domestic service	9.0	6.0	6.7	3.2	8.2
Agriculture	1.5	2.4	1.0	1.3	1.6
Manufacturing industries	35.8	54.1	38.5	40.8	38.7
Transportation	3.9	2.4	1.9	8.3	3.9
Public service	1.9	3.3	1.0	2.5	2.1
Trade and business	9.8	6.4	8.6	12.7	9.4
Clerical occupations	3.8	2.4	1.0	3.2	3.5
Professional service	1.5	.9	1.0	3.2	1.5
Retired	.7	.6	1.9	.6	.8
Not living or deserted	21.0	11.8	28.8	1.15	19.4
Total	100.0	100.0	100.0	100.0	100.0

[1] The Somerville school was established in 1911 as a trade school but in 1913 was changed to a "vocational school for girls."

[2] Based on the number of girls the occupations of whose fathers were reported.

The occupational distribution shown here is about what one would expect. There is a small representation of the daughters of professional men and of men engaged in either clerical occupations or trade; for the most part such men can afford to give their daughters a longer training and to prepare them for professional or clerical work. There is rather a small representation of the daughters of unskilled laborers; presumably in these families the need for immediate returns makes it necessary for the girls to begin wage earning as soon as they reach the legal age. By far the largest group in all the cities comes from families in which the father is engaged in manufacturing industries, these apparently representing the stage of well-being in which, while it is necessary for the daughter to become a wage earner at an early age, it is still possible to give her some preparation and to allow her to enter a trade at which she must practically serve an apprenticeship. The next largest group, those whose fathers are dead or have deserted their families, is rather puzzling; it is not surprising that under these circumstances the daughters should find it necessary to become wage earners, but the natural supposition would be that they, like the daughters of the unskilled laborers, would be obliged to seek occupations which they could enter without preliminary training.

Comparing the type of family, as indicated by the father's occupation, from which the trade school draws its pupils, a surprising uniformity is discovered in the four cities. Almost two-fifths (38.7 per cent) of the 2,672 girls going out from the four schools (including the Somerville Vocational School, which was established as a trade school) had fathers engaged in manufactures, and with the exception of Worcester, where a larger proportion is engaged in this occupation, this is the prevalent situation in all the schools. About one-fifth (19.4 per cent) came from homes where there was no father as a wage earner, though this proportion was smaller in Worcester and Somerville. In this connection it is interesting to note that these schools are finding it possible to emphasize the home-making or practical arts form of training rather than equipment for immediate wage earning. In all other respects practically the same proportions are drawn from the several occupations. Not only, therefore, is the trade-school group as a whole similar in nativity, but also in social and economic background.

The extent to which vocational schools of particular types draw from a characteristic type of family is illustrated by comparing the father's occupation of the girls attending the trade school, involving only one or two years' training, and of those attending the high schools in Boston, requiring four years. This comparison is made in Table 110.

The manufacturing industries predominate for both, since they occupy more than one-third of the male population of Boston, but 30.6 per cent of the high-school girls and 37.1 per cent of the trade-school girls came from families whose fathers were engaged in this division of industry. A similar proportion, 31 per cent, of the high-school girls, but only 11.1 per cent of the trade-school girls came from families where the father was engaged in trade, public service, or professional occupations. Over 20 per cent of the trade-school girls and only 9.7 per cent of the high-school girls came from the homes of unskilled laborers and men engaged in personal and domestic service. The large proportion of trade-school girls (18.8 per cent) and the small proportion of high-school girls (4.9 per cent) who came from homes where there was no father show the necessity for a short preparation for wage earning.

TABLE 110.—NUMBER AND PER CENT OF GIRLS ATTENDING THE HIGH SCHOOLS AND THE TRADE SCHOOL IN BOSTON WHOSE FATHERS WERE IN SPECIFIED OCCUPATIONS.

Occupation of the father.	Number.		Per cent.	
	High school.[1]	Trade school.	High school.	Trade school.
Unskilled labor	20	101	6.5	11.9
Personal and domestic service	10	72	3.2	8.5
Agriculture	6	12	1.9	1.4
Manufacturing industries	95	315	30.6	37.1
Transportation	11	34	3.5	4.0
Public service	17	10	5.5	1.2
Trade and business	70	73	22.6	8.6
Clerical occupations	6	32	1.9	3.8
Professional service	9	11	2.9	1.3
Retired	15	11	15.2	1.3
Not living or deserted	47	160	4.9	18.8
Not reported	4	18	1.3	2.1
Total	310	849	100.0	100.0

[1] Department of Research, Women's Educational and Industrial Union: The public schools and women in office service, p. 163. Five of the nine high schools in five different type neighborhoods were taken as a basis for this study.

GIRLS EMPLOYED DURING INTERVAL BETWEEN GRAMMAR-SCHOOL AND TRADE-SCHOOL ATTENDANCE.

The economic status of the families from which the pupils come is indicated to some extent by the method by which an interval, when one exists, between the grammar-school and the trade-school attendance is occupied. In both Boston and Worcester the majority of the girls have gone directly from the grammar school to the trade school, as is usual in the case of any secondary school. In both cities, however, a certain number did not attend the trade school until some time after they had left the grammar school. The following table shows for Boston the number who did not enter the trade school on leaving the grammar school, and whether or not they were gainfully employed in the interval:

TABLE 111.—NUMBER OF BOSTON TRADE SCHOOL GIRLS WHO WORKED AND WHO DID NOT WORK IN THE INTERVAL BETWEEN GRAMMAR AND TRADE SCHOOL ATTENDANCE, BY COURSES TAKEN IN TRADE SCHOOL.

Course.	Girls taking specified courses—			
	Not going directly to trade school—		Going directly to trade school.	Total.
	Who worked.	Who did not work.		
Dressmaking	54	60	384	498
Millinery	16	19	140	175
Power-machine operating (cloth and straw hats)	24	27	113	164
Cooking and design	1	1	10	12
Total[1]	95	107	647	849

[1] These figures do not agree with those given in Table 2, as those are based on the number who had not gone to trade school for four months or more after leaving the grammar school, while this table includes those who worked during summer vacation between attendance at grammar school and at trade school.

Very nearly one-half (47 per cent) of the girls who did not go directly to the trade school were gainfully employed in the interval, and of these more than one-fourth had no father. Almost an equal proportion of those who had not gone directly to the trade school but had not worked in the interval had no fathers, the majority of these probably keeping house while the mother worked. A little more than one-third (37.9 per cent) of the 95 girls who had worked before entering trade school were enrolled in the school during its first five years of existence, and 62.1 per cent during the second period of five years, contrary to the common opinion that a trade school draws back from industry a larger proportion of its pupils in its first years than later. The larger proportion drawn from industry during the second five-year period may be partially due to the more stringent regulation of child labor in Massachusetts during recent years, which may have thrown some of the girls out of work.

A little more than one-half of the girls who had been employed previous to entering the trade school had worked less than six months, and more than two-thirds (70 per cent) had worked less than one year. At the other extreme nine had worked more than three years. The 95 girls reported 140 previous positions. The industrial distribution and earnings of those who had worked are shown in the following table:

TABLE 112.—NUMBER OF BOSTON TRADE SCHOOL GIRLS WHO HAD EARNED SPECIFIED WAGE IN SPECIFIED OCCUPATIONS BEFORE ENTERING TRADE SCHOOL.

Occupation.	Number of girls in specified occupations earning specified wage.[1]					
	Under $2	$2 and under $4	$4 and under $6	$6 and over.	Not reported.	Total.
Manufactures	[2] 8	13	15	21	4	61
Trade, clerical occupations, and transportation		14	7	2	3	26
Domestic and personal service		1	3	1		5
Professional service				3		3
Total	8	28	25	27	7	95

[1] The last wage is used except in a few cases, where only first wage was given.
[2] Five of these girls worked as apprentices without pay.

In general, there was little correlation between the previous work, as shown here, and the trade training chosen, although one-fifth of the 54 girls who came for training in dressmaking, 3 of the 16 milliners and 6 of the 12 cloth power-machine operators had previously worked in some capacity in the trade for which they came to secure training. Two of the 12 straw power-machine operators had previously worked in millinery. The majority of the girls, however, had worked in manufactures, and a little more than one-fourth had been employed in business pursuits, mostly as errand girls, cash girls, or bundle girls.

The majority of these girls worked at low wages, two-fifths (40.9 per cent) of those who reported their wages earning less than $4 a week, and a little more than two-thirds (69.3 per cent) earning less than $6.

Among the Worcester girls 70 had not gone directly to the trade school after leaving the grammar school, and of these 44 had worked for wages. Eighteen (40.9 per cent) of these were engaged in trade, clerical occupations, or transportation, 15 (34.1 per cent) in manufactures, and 11 (25 per cent) in domestic and personal service. Five earned under $2 a week, 21 earned $2 and under $4, 9 earned $4 and under $6, 8 earned $6 and over, and for 1 earnings were not reported.

Among the girls of the Cambridge Trade School more than one-fourth (28.6 per cent) had not come directly from the grammar schools. The majority of these, however, had been at home during the interval, and only 7.2 per cent had been at work.

AGE AT BEGINNING WORK.

The following table shows the age at beginning work of 1,029 girls (comprising those who worked in their own trade and those who, having attended trade school for nine months or more, did not use their trade training but worked in some other occupation):

TABLE 113.—NUMBER AND PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE SCHOOL GIRLS WHO BEGAN WORK AT SPECIFIED AGES.

Trade school.	Age at beginning work.						Total
	Under 16 years.		16 and under 18 years.		18 years and over.		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Boston	204	24.1	444	53.9	182	22.0	830
Worcester	33	24.8	71	53.4	29	21.8	133
Cambridge	24	36.4	33	50.0	9	13.6	66
Total	261	25.4	548	53.4	220	21.4	1,029

The age grouping at time of beginning work is almost identical in Boston and Worcester. The larger proportion beginning at an early age in Cambridge is accounted for by the brief existence of the school and the short time of attendance, rather than by any greater economic pressure at home. Taking the pupils of the three schools as a whole, three-fourths were 16 or over before commencing work. There are two reasons for this: First, the majority had attended trade school one year or more, which naturally raised the age at beginning work; and, second, the trades for which they were trained are showing an increasing tendency to exclude the younger girls.

The age at which the girl goes to work seems to vary considerably according to the nativity of the girls and of their parents. The following table shows the relation between nativity and age at beginning work:

TABLE 114.—NUMBER AND PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL GIRLS WHO BEGAN WORK AT SPECIFIED AGES, BY NATIVITY.

NUMBER.

Nativity of girl.	Girls beginning work at specified age.											
	Boston.				Worcester.				Cambridge.			
	Under 16	16 and under 18	18 and over.	Total.	Under 16	16 and under 18	18 and over.	Total.	Under 16	16 and under 18	18 and over.	Total.
Native-born white:												
Native parentage....	37	141	74	252	6	30	18	54	10	12	5	27
Foreign parentage...	127	238	66	431	24	38	8	70	11	10	......	21
Not reported........	6	9	7	22	......	......	......	......	1	1	......	2
Total..............	170	388	147	705	30	68	26	124	22	23	5	50
Foreign-born white......	24	34	11	69	3	2	......	5	2	5	......	7
Negro..................	6	20	22	48	......	1	3	4	......	5	4	9
Not reported............	4	2	2	8	......	......	......	......	......	......	......	......
Grand total.......	204	444	182	[1]830	33	71	29	133	24	33	9	66

PER CENT.[2]

Nativity of girl.	Boston.				Worcester.				Cambridge.			
	Under 16	16 and under 18	18 and over.	Total.	Under 16	16 and under 18	18 and over.	Total.	Under 16	16 and under 18	18 and over.	Total.
Native-born white:												
Native parentage....	14.6	56.0	29.4	100.0	11.1	55.6	33.3	100.0	37.0	44.5	18.5	100.0
Foreign parentage...	29.2	55.6	15.2	100.0	34.3	54.3	11.4	100.0	52.4	47.6	......	100.0
Not reported........	27.3	40.9	31.8	100.0	......	......	......	......	50.0	50.0	......	100.0
Total..............	23.9	55.2	20.9	100.0	24.2	54.9	20.9	100.0	44.0	46.0	10.0	100.0
Foreign-born white......	34.8	49.2	16.0	100.0	60.0	40.0	......	100.0	28.6	71.4	......	100.0
Negro..................	12.5	41.7	45.8	100.0	......	25.0	75.0	100.0	......	55.6	44.4	100.0
Grand total.......	24.1	53.9	22.0	100.0	24.8	53.4	21.8	100.0	36.4	50.0	13.6	100.0

[1] Not including 1 whose age was not reported.
[2] Based on the number of girls whose nativity was reported.

The greater economic pressure in the families with foreign parents, and also a difference in the point of view seem to account for the earlier age at which the foreign-born girls and girls with foreign parents go to work. This difference is marked. Of the Boston girls who were native-born white 23.9 per cent began work before the age of 16, but only 14.6 per cent of the girls with native-born parents as against 29.2 per cent of those with foreign-born parents began work before 16 years of age. Of the foreign-born white girls 34.8 per cent began work before the age of 16. In Worcester and Cambridge even larger proportions of the native white girls with foreign parents began work under 16. Since the majority of the trade-school girls in Boston and Worcester have foreign-born parents, this group characterizes the situation, more than one-half beginning work between the ages of 16 and 18, regardless of nativity. At the other extreme, however, the difference again becomes apparent. Of the Boston girls who were native-born white, 20.9 per cent began work at the age of 18 or over, but those of native-born parentage had 29.4 per cent in this group, against 15.2 per cent of those with foreign-born parents. Only 16 per cent of the foreign-born girls began work at the age of 18 or over. A surprisingly large proportion (45.8 per cent) of the Negro girls did not begin work until 18 or over. The difficulty usually experienced by young Negro girls in securing work in the ordinary juvenile employments in stores and factories probably explains their later entrance into industry.

FAMILY CONDITION OF TRADE-SCHOOL GIRLS.

The following table shows the number of the trade-school girls in the three cities who lived at home and elsewhere.

TABLE 115.—NUMBER AND PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL GIRLS HAVING SPECIFIED LIVING CONDITIONS.

BOSTON.

Age at time of investigation.	Living at home.			Boarding.			Receiving board as part of wage.[1]	All others.	Total.
	With family.	With relatives.	Total.	With relatives.	With others.	Total.			
Number of girls—									
Under 18 years	107	4	111	1	3	4			115
18 and under 20 years	165	12	177	4	1	5	1		183
20 and under 22 years	167	7	174	2	9	11	8	2	190
22 and under 24 years	116	9	125	5	10	15		1	141
24 years and over	86	4	90	2	12	14	2	3	109
Not living	4	1	5					1	6
Total	645	37	682	14	35	49	6	7	744
Per cent	86.7	5.0	91.7	1.9	4.7	6.6	0.8	0.9	100.0

WORCESTER.

Age at time of investigation.	Living at home.			Boarding.	Receiving board as part of wage.	Total.
	With family.	With relatives.	Total.			
Number of girls—						
Under 16 years	11	1	12			12
16 and under 18 years	64	4	68	2		70
18 and under 20 years	57	2	59	3		62
20 years and over	17	3	20	1	1	22
Total	149	10	159	[1] 6	1	166
Per cent	89.8	6.0	95.8	3.6	0.6	100.0

[1] Two boarded with relatives.

TABLE 115.—NUMBER AND PER CENT OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE-SCHOOL GIRLS HAVING SPECIFIED LIVING CONDITIONS—Concluded.

CAMBRIDGE.

Age at time of investigation.	Living at home.			Boarding.	Receiving board as part of wage.	Not reported.	Total.
	With family.	With relatives.	Total.				
Number of girls—							
Under 16 years	20		20				20
16 and under 18 years	41	4	45	1	1	2	49
18 and under 20 years	13	2	15	1			16
20 years and over	9	1	10			1	11
Not reported						2	2
Total	83	7	90	2	1	5	98
Per cent	84.7	7.1	91.8	2.0	1.0	5.2	100.0

The great majority were living at home, the proportion in this group being in Boston 91.7 per cent, in Worcester 95.8 per cent, and in Cambridge 91.8 per cent. This large proportion at home is what is to be expected in so youthful a group; that it is due to the immaturity of the girls seems to be shown by the variation in the proportion in Boston, where the larger group gives an opportunity for tendencies to make themselves apparent. Here the proportion living at home decreases from 96.5 per cent among those under 18 to 82.6 per cent among those aged 24 or over.

In general the families from which the girls came seemed to be in fairly comfortable circumstances. In Boston 38.5 per cent of the girls, and in Worcester 30.1 per cent came from homes in which there were no other dependents, classing as dependents nonwage-earning brothers and sisters, invalids, or nonproducers of any kind. Nor was there any very serious need that the young trade-school girl should begin work at an early age, since more than one-half in the two cities came from families in which there were one or two other wage earners besides the father. On the other hand, in the families of 11.4 per cent of the 744 Boston girls the mother was employed in wage-earning occupations. While some of these young trade-school girls bore heavy responsibilities, and some, at times of illness or unemployment of others at home, became the main support of their families, in the majority of cases the families were not in extremely straitened circumstances, as evidenced by the very fact that they were able to give the girls a year or more of trade training, as well as to permit the period of apprenticeship and small earnings required in skilled and seasonal industries, such as the clothing trades.

CONTRIBUTION TO FAMILY INCOME.

The following table shows, by age, and by nativity of parents, the number of the trade-school girls studied in the three cities who gave all, part, or none of their earnings to the family:

TABLE 116.—NUMBER OF BOSTON, WORCESTER, AND CAMBRIDGE TRADE SCHOOL GIRLS CONTRIBUTING SPECIFIED PARTS OF THEIR EARNINGS TO THE FAMILY, BY AGE GROUP, AND NATIVITY OF PARENTS.

Age group.	Girls with native-born parents and contributing—					Girls with foreign-born parents and contributing—					Nativity of parents not reported.	Total.
	All of their earnings.	Part of their earnings.	None of their earnings.	Not reported.	Total.	All of their earnings.	Part of their earnings.	None of their earnings.	Not reported.	Total.		
BOSTON.												
Under 18 years	16	5	5	......	26	68	10	3	7	88	[1] 1	115
18 and under 20 years	27	23	6	3	59	82	27	6	6	121	[2] 3	183
20 and under 22 years	22	23	16	5	66	68	31	11	9	119	[3] 5	190
22 and under 24 years	20	22	14	8	64	28	32	7	5	72	[4] 5	141
24 years and over	8	16	8	11	43	16	24	10	4	54	[5] 12	109
Not living	......	......	......	2	2	1	......	......	1	2	[6] 2	6
Total	93	89	49	29	260	263	124	37	32	456	28	744
WORCESTER.												
Under 16 years	......	......	......	4	4	3	......	3	2	8	......	12
16 and under 18 years	11	3	3	9	26	22	4	9	9	44	......	70
18 and under 20 years	7	10	6	9	32	15	5	6	4	30	......	62
20 years and over	3	7	4	......	14	3	......	1	......	4	......	18
Not living	......	1	2	1	4	......	......	......	......	......	......	4
Total	21	21	15	23	80	43	9	19	15	86	......	166
CAMBRIDGE.												
Under 16 years	2	1	......	8	11	4	......	......	5	9	......	20
16 and under 18 years	11	......	1	10	22	16	2	1	5	24	3	49
18 and under 20 years	5	1	3	4	13	1	......	......	2	3	......	16
20 years and over	4	......	......	4	8	1	......	......	1	2	1	11
Not living	......	......	......	1	1	......	......	......	1	1	......	2
Total	22	2	4	27	55	22	2	1	14	39	4	98

[1] All earnings contributed.
[2] 2 contributing all earnings and 1 not reported.
[3] 1 contributing all earnings and 4 not reported.
[4] All not reported.
[5] 2 contributing part of their earnings, 3 none, and 7 not reported.
[6] 2 not reported.

These figures do not show so large a proportion of the girls turning in all their earnings as was found in some previous investigations. Of the 654 Boston girls who had entered their trades and from whom full data as to age, nativity of parents, and contributions to the family were received, 54.3 per cent gave all their earnings to the family, 32.6 per cent contributed a definite and substantial portion, and 13.1 per cent gave none. The United States Bureau of Labor found in 1910 that in Boston of 243 women employed in stores 55.6 per cent, and of 489 women in factories 61.7 per cent contributed all their earnings to the family fund.[1] On the other hand, in a recent investigation in Boston covering 310 office workers, two-thirds of whom were high-school graduates, it was found that 39.7 per cent contributed all their earnings, 51.6 per cent part, and 8.7 per cent none.[1] The proportion of trade-school girls in Boston contributing all their earnings is almost the same as the proportion of store employees studied in 1910, but much larger than that of the high-school graduates studied in the later investigation. Some of the girls reported as giving part of their earnings paid board, ranging from $3 to $6, but the majority gave most of their wage, keeping enough for car fare and lunch, with perhaps a little margin for spending money. Excluding girls who were not living and those for whom full data on all points were not given, Worcester shows a smaller proportion turning in all their earnings than either of the other cities; 51.2 per cent contributed all, 23.2 per cent part, and 25.6 per cent none. In Cambridge 83 per cent of the girls turned in all their earnings.

---

[1] Report on woman and child wage earners in the United States (S. Doc. 645, 61st Cong., 2d sess.), Vol. V, pp. 18 and 19.

The amount contributed varies both with the girl's age and her parentage, the daughters of foreign-born parents turning in all their earnings more generally than the daughters of native-born parents. The following table shows this difference for the Boston girls:

TABLE 117.—PER CENT OF BOSTON TRADE SCHOOL GIRLS CONTRIBUTING SPECIFIED PARTS OF THEIR EARNINGS TO THE FAMILY, BY AGE GROUP, AND NATIVITY OF PARENTS.

Age group.	Girls with native-born parents.					Girls with foreign-born parents.				
	Number.	Contributing all their earnings.	Contributing part of their earnings.	Contributing none of their earnings.	Total.	Number.	Contributing all their earnings.	Contributing part of their earnings.	Contributing none of their earnings.	Total.
Under 18 years	26	61.5	19.2	19.2	100.0	81	84.0	12.3	3.7	100.0
18 and under 20 years	56	48.2	41.1	10.7	100.0	115	71.3	23.5	5.2	100.0
20 and under 22 years	61	36.1	37.7	26.2	100.0	110	61.8	28.2	10.0	100.0
22 and under 24 years	56	35.7	39.3	25.0	100.0	67	41.8	47.8	10.4	100.0
24 years and over	32	25.0	50.0	25.0	100.0	50	32.0	48.0	20.0	100.0
Total	231	40.3	38.5	21.2	100.0	423	61.9	29.3	8.7	100.0

In this table the connection between age and control of earnings shows clearly. For both the daughters of native and of foreign parents, the girls under 18 show much the largest proportion contributing all their earnings, and thereafter this proportion decreases rather uniformly with increasing age. Among the daughters of the foreign-born there is a sudden fall in this proportion at the age of 22 and under 24; this marks, perhaps, the age at which the girls begin to insist on paying board, for it is not accompanied by any increase in the proportion keeping all their earnings for themselves. This appears in the next group, those aged 24 and over. Among the daughters of native parents the decrease in the proportion contributing all their earnings is slow after the girls have reached 20 years of age, while from that age onward the proportion keeping all their earnings for themselves remains practically stationary.

---

[1] Department of Research, Women's Educational and Industrial Union: The public schools and women in office service, p. 168.

As between the daughters of foreign and of native parents, the former show a much larger proportion in the three younger age groups turning over all their earnings; by the time the girls have reached 22, however, the difference is not very great. The proportion retaining all their earnings remains considerably smaller among the daughters of foreign parents up to the age of 24; then it suddenly increases and among those aged 24 or over is nearly as large as among the daughters of native parents.

Not only does the girl give from her earnings, but she contributes her services to her family, and home demands play an important part in the interruption of her wage-earning career. Among the 392 Boston girls who left their trades, 10.3 per cent[1] did so on account of domestic reasons other than those involved in their own marriage, and 21.9 per cent[2] of the 105 who never used their trade gave similar reasons for their failure to do so. More than one-fourth (26.4 per cent)[3] of the 72 Worcester girls who never used their trade were kept from doing so by home reasons other than their marriage, and in 17 of these 19 cases the girls were helping at home. Illness at home or pressure of domestic duties frequently results in the withdrawal of the girl from her work. Sometimes she keeps house while the mother, who can command a higher wage, goes out and works.

The girl who has been trained for the sewing trades also contributes valuable assistance in making clothes for the family in the evenings after work and in the dull season, if not otherwise employed. In Boston 229 of the girls studied filled in the dull season "making clothes for self and family," 25.1 per cent of the 744 girls who used their trade and 40 per cent of the 105 who did not, thus utilizing their time.

MARRIAGE AS AN INTERRUPTION TO WORKING CAREER.

Marriage also constitutes an interruption in the girl's wage-earning career, though in less degree than is generally supposed. Of the 849 girls studied in Boston, 135 were married at the time of the investigation. The following table shows the distribution of these, by trade and by nativity of parents:

---

[1] See Table 56, p. 94.

[2] See Table 43, p. 73.

[3] See Table 87, p. 155.

TABLE 118.—NUMBER AND PER CENT OF BOSTON TRADE SCHOOL GIRLS WHO WERE MARRIED, BY NATIVITY OF PARENTS AND BY OCCUPATION.

Occupation.	Total number of girls.	Girls who were married and whose parents were—					
		Native born.	Foreign born.		Nativity of parents not reported.	Total.	
			In English speaking countries.	In non-English speaking countries.		Number.	Per cent of all girls in each occupation.
Using trade:							
Dressmaking	423	23	21	18	6	68	16.1
Millinery	157	15	7	8	3	33	21.0
Cloth machine operating	81	2	6	2		10	12.3
Straw machine operating	72	4	2	4	1	11	15.3
Cooking and design	11	1				1	9.1
Total	744	45	36	32	10	123	16.5
Not using trade	105	5	2	3	2	12	11.4
Grand total	849	50	38	[1] 35	12	135	15.9

[1] 16 of the 35 were of German parentage.

This shows that 15.9 per cent of the total group had married. Among the 744 girls who worked at their trade, the proportion marrying was slightly larger, 16.5 per cent. More than one-half, 59.3 per cent, of the girls who had married were of foreign parentage, about one-half of these parents being from non-English speaking countries, German predominating. One-third (33.3 per cent) of the girls who married were 22 years of age or over, and more than one-half (54 per cent) were aged 20 or over. Thirty-three and four-tenths per cent married between 18 and 20 years, and 12.8 per cent were under 18 years of age.

More than one-half had been out of trade school four years or more, and one-fourth (26.7 per cent) six years or more before marriage. One-half had worked for four years or more previous to their marriage. Twenty-eight worked after marriage, but 20 of these were so engaged for less than one year. Sometimes the gainful occupation was entered upon immediately after marriage, because the girl "wished to finish the season" and sometimes not until several years after marriage, when her babies were old enough to allow her time to sew or trim hats for friends and neighbors. In some cases the young husband died or proved worthless, and the girl became a regular wage earner again.

SUMMARY.

The trade schools in the three cities seem to be drawing a fairly definite trade-school type similar in nativity and economic status. These girls, from the standpoint of nativity, are similar to the 15 to 20 year-old school population, but very different from those in the trades for which they are trained. The majority begin work at 16 years or over, though this differs with the standing of the family, since economic pressure may oblige the girl to go to work at an earlier age. In general the trade-school girls in Massachusetts come from homes of a higher degree of comfort than has been supposed. Their contribution to the family income does not show the existence of great economic pressure in the home; in the majority of cases there were few dependents (young brothers or sisters, invalids, or nonproducers of any kind), and usually, also, there were other wage earners besides the father in the family. A little more than one-tenth in Boston and one-fourth in Worcester had worked before entering the trade school. In Boston one-eighth (12.6 per cent) and in Worcester nearly one sixth (15.7 per cent) had stayed at home for a time after leaving the public schools, but the majority had gone directly from the ordinary schools to the trade school, as is true in regard to any secondary school.

CHAPTER VII.—INDUSTRIES FOR WHICH TRADE SCHOOLS TRAIN.

BASIS OF TRADE TRAINING.

Trade training for girls, which was first established in the two traditional and primary home arts—the making of clothing and the preparation of food—is, after 10 years of experimentation in Massachusetts, still confined to these two occupations. The chief emphasis from the beginning in the three trade schools has been on the hand-sewing trades, custom dressmaking, and millinery. Electric power-machine operating has not been introduced in the Cambridge school and occupies a relatively small place in the Boston and Worcester trade schools.

Both friends and critics are beginning to query (1) to what extent does the trade school understand and correlate its training with trade needs and demands; and (2) to what degree does the school meet the needs of the trade for young workers? Some light is thrown on these questions through the experience of the girls who go out from the trade school. But there is still much to be learned through study of these industries themselves, to discover why a comparatively small proportion utilize their training and why certain types of girls do not succeed. An appreciation of the trend of the industry for which training is offered is fundamental. A personal knowledge of the opportunities for initiation of young partially equipped workers and of their opportunities for advancement with increasing experience is necessary to avoid oversupply. Only through intimate acquaintance with the local industries and shops can the school develop the educational possibilities within the trade, and successfully direct and adjust individual pupils to the industries for which they have the requisite qualifications.[1]

WOMEN'S CLOTHING TRADES.

The women's clothing trades which constitute the basis for trade training have been undergoing a tremendous industrial reorganization during the last 25 years with two results: (1) New York has practically monopolized the trade, controlling about two-thirds of the output, capital invested, and wage earners, though Boston, for instance, seriously competes with surrounding cities in New England; (2) The manufacture of ready-made clothing continues to become an increasingly formidable competitor of the custom and hand-sewing trades.

---

[1] Three studies made by the Department of Research of the Women's Industrial and Research Union, aiming to accomplish this end have already been published, as follows: Dressmaking as a trade for women in Massachusetts, Bul. No. 193, United States Bureau of Labor Statistics; Boot and shoe making in Massachusetts as a vocation for women, Bul. No. 180, United States Bureau of Labor Statistics; and Millinery as a trade for women, by Lorinda Perry. This discussion is presented in order to set forth the changing conditions since these studies were made, and their relation to trade-school problems.

DECREASE IN NUMBER OF CUSTOM WORKERS.

During the 10 years from 1890 to 1900, custom dressmaking showed a decline in practically every aspect except capital invested, and number and wages of men, while "factory product" increased more than 100 per cent in practically every phase. From 1900 to 1910 the factory product continued its phenomenal growth, and while there are no comparable official figures from custom shops for this period, everything seems to indicate an even greater decline in the custom-dressmaking trade.

For official statistics on custom dressmaking after 1900, we are dependent on the census of occupations, from which the following table is derived:

TABLE 119.—NUMBER OF WOMEN EMPLOYED AS DRESSMAKERS AND SEAMSTRESSES, AND IN ALL MANUFACTURES, FROM 1900 TO 1910.

Locality.	Number of women.				Per cent of increase (+) or decrease (—) of women in 1910.	
	All manufactures.		Dressmakers and seamstresses.		All manufactures.	Dressmakers and seamstresses.
	1900	1910	1900	1910		
United States	1,312,668	1,820,980	[1] 490,899	[2] 453,749	+38.7	— 7.6
New York	132,535	207,959	[3] 55,622	[4] 39,762	+56.9	—28.5
Boston	20,250	27,260	[5] 8,552	[6] 6,645	+34.6	—22.3
Worcester	4,937	7,099	[7] 1,691	[8] 815	+43.8	—51.8

[1] United States Census, 1900, Occupations, p. lii.

[2] United States Census, 1910, Vol. IV, Occupations, p. 91. 447,760 dressmakers, and 5,989 dressmakers' apprentices. See United States Census, 1910, Vol. IV, Occupations, p. 312.

[3] United States Census, 1900, Occupations, p. 640.

[4] 38,850 dressmakers and 912 apprentices. United States Census, 1910, Vol. IV, Occupations, pp. 180, 182.

[5] United States Census, 1900, Occupations, p. 498.

[6] 6,568 dressmakers and 77 apprentices. United States Census, 1910, Vol. IV, Occupations, pp. 152, 154.

[7] United States Census, 1900, Occupations, p. 762.

[8] 800 dressmakers and 15 apprentices. United States Census, 1910, Vol. IV, Occupations, pp. 194, 196. Since the number of dressmakers' apprentices enumerated for the United States as a whole (see United States Census, Vol. IV, Occupations, p. 312) was just half the number enumerated under "Dressmakers' and milliners' apprentices," the assumption has been made that this division would be approximately true in the several cities and one-half the number quoted has been added to the number of dressmakers reported.

This table shows a decline of 7.6 per cent in the number of women dressmakers and seamstresses in the United States, compared with an increase of 38.7 per cent in all manufacturing and mechanical industries. In New York City, the center of the women's clothing trade in the United States, dressmakers and seamstresses decreased 28.5 per cent, in Boston 22.3 per cent, and in Worcester 51.8 per cent, while there was a large increase of women in all manufactures.

A glance at the growth of the factory product in the women's clothing trade during the same period (as shown in the following table) provides the explanation.

TABLE 120.—GROWTH OF WOMEN'S FACTORY-MADE CLOTHING INDUSTRY FROM 1900 TO 1910 IN THE UNITED STATES AND IN NEW YORK CITY AND BOSTON.

Locality and year.	Establishments.		Wage earners.		Wages paid.		Capital invested.		Value of product.	
	Number.	Per cent of increase over 1900.	Average number.	Per cent of increase over 1900.	Amount.	Per cent of increase over 1900.	Amount.	Per cent of increase over 1900.	Amount.	Per cent of increase over 1900.
United States:[1]										
1900	2,701	......	83,739	......	$32,586,000	......	$48,432,000	......	$159,340,000	......
1910	4,558	68.8	153,743	83.6	78,568,000	141.1	129,301,000	167.0	384,752,000	141.5
New York City:[2]										
1900	1,607	......	44,715	......	20,929,000	......	27,389,000	......	102,712,000	......
1910	2,995	86.4	94,268	110.8	53,518,000	155.7	80,762,000	194.9	266,477,000	159.4
Boston:[2]										
1900	88	......	1,760	......	625,000	......	731,000	......	3,258,000	......
1910	122	38.6	3,540	101.2	1,649,000	163.8	2,409,000	229.5	7,842,000	140.7

[1] United States Census, 1910, Manufactures, Vol. VIII, p. 574. [2] Idem, Vol. IX, pp. 523, 859.

The average number of wage earners both in New York and Boston increased during the decade more than 100 per cent, and the wages and value of product about 150 per cent. The tendency toward the development of larger establishments in Boston is observed in the increase of 38.6 per cent in the number of establishments as compared with an increase of 101.2 per cent in the number of wage earners, and 229.5 per cent increase in capital invested. The production of a higher class product is suggested by the increase of 140.7 per cent in value of product, 163.8 per cent in wages paid, as compared with 101.2 per cent increase in the number of wage earners. The increased production of women's ready-made clothing in Boston during the ten years since the Boston Trade School was established suggests that here is a desirable line of development in trade training. Yet the proportion of girls enrolled in the courses in power-machine operating shows a decrease instead of an increase.[1]

DECREASE IN PROPORTION OF YOUNG WORKERS EMPLOYED.

This industrial evolution in the women's clothing industry is bringing about fundamental changes in the sewing trades—not only in the reduction of numbers engaged in the custom branches of the trade, for which the schools train the largest proportion of their workers, but also in the organization and the methods of production. This change leaves small opportunity for admission of the young workers, because (1) practically every kind of clothing is now made in the factory,[2] and the custom shop is increasingly limited to expensive house dresses of perishable and rich materials, which provide little or no opportunity for the employment of young inexperienced workers: and (2) the development of the large custom shop,[a] which is one consequence of the competition of the factory, means subdivision of labor under paid heads who are under obligation to make their department pay and who consequently have little time or inclination to bother with young workers since the keen competition necessitates immediate returns.

---

[1] See Tables 3 and 4, pp. 20 and 21.

[2] See definition of women's clothing, factory product, in the United States Census, 1910, Manufactures, Vol. VIII, p. 398.

The effect is obvious in the marked decrease in the number of dressmakers and seamstresses reported under the age of twenty-one years. The following table shows, by age groups, the changes during the decade 1900–1910 in the number of women employed in all occupations, and as dressmakers and seamstresses:

TABLE 121.—NUMBER AND PER CENT OF WOMEN IN EACH AGE GROUP IN ALL OCCUPATIONS AND IN DRESSMAKING, 1900 AND 1910.

Age.	Number.				Per cent.				Per cent of increase or decrease over 1900.	
	All occupations.[1]		Dressmakers and seamstresses.[2]		All occupations.		Dressmakers and seamstresses.		All occupations.	Dressmakers and seamstresses.
	1900	1910	1900 [3]	1910 [2]	1900	1910	1900	1910		
Under 16 years	485,767	637,086	14,031	4,697	9.1	7.9	2.9	1.0	+31.2	−66.5
16 and under 21 years	1,237,967	1,847,600	89,714	48,534	23.3	22.9	18.2	10.8	+49.2	−45.9
21 years and over	3,595,663	5,591,086	387,154	396,677	67.6	69.2	78.9	88.2	+55.5	+ 2.5
Total	5,319,397	8,075,772	490,899	[4] 449,908	100.0	100.0	100.0	100.0	+51.8	− 8.4

[1] United States Census, 1910, Vol. IV, Occupations, p. 69.

[2] Idem, p. 312, number found by combining figures for dressmakers, dressmakers' apprentices, and seamstresses.

[3] Compiled from United States Census, 1900, Occupations, pp. cxxxiv and cxliii.

[4] Figures given in United States Census, 1910, Vol. IV, Occupations, p. 312. These do not agree with totals given on p. 91 and used in Table 119.

While the total number employed as seamstresses decreased about 8 per cent from 1900 to 1910, those under 16 years of age showed a decrease of 66.5 per cent and from 16 to 20 years a decrease of 45.9 per cent. On the other hand, the number of women under 16 years of age in all occupations increased 31.2 per cent and of those from 16 to 20 years increased 49.2 per cent. Women under 21 years of age constituted 21.1 per cent of the dressmakers and seamstresses in the United States reported in 1900 and but 11.8 per cent in 1910. Similar tendencies may be observed in different cities.[b]

---

[a] Dressmaking as a trade for women in Massachusetts. Bul. No. 193, United States Bureau of Labor Statistics.

[b] The United States Census returns on age groups in particular occupations in cities are not comparable, since those for 1900 combine 16 years and under 24 and those for 1910 combine 16 years and under 20, and 21 years and under 44.

The tendency to abandon the employment of girls under 16 years of age has increased with the passage of the Massachusetts law of 1913, limiting their working-day to eight hours and requiring attendance at continuation schools. In a fashionable shop in Boston in 1910, 11 of the total number, 99, appearing on the pay roll during the year were under 18 years of age. In 1914, 3 of the total number, 89, employed during the year were under 18 years. Nineteen shops on Boylston and Tremont Streets and Massachusetts Avenue were visited to discover the proportion of young workers employed. More than two-thirds, 69.1 per cent, of the 537 women employed were over 25 years of age. (Table 122.) The keen competition and the small opportunities for the young partially equipped workers are obvious in the experience of the recent trade-school girls. Only 80 per cent of the 75 girls who went out from the Boston Trade School in 1913–14 into the dressmaking trade were still in the trade at the end of their first year's experience, while for no previous year had the proportion fallen below 91 per cent.

The managers of the Worcester Trade School say it is not possible to place permanently more than 10 newly trained girls each year, and there is a danger that these will displace the girls sent out into the trade the year before. This is illustrated in the experience of the girls who have gone out of the trade school. Nine girls trained in dressmaking nine months [1] or more went out from the school during 1911–12, five entering the trade, and three persisting at the end of the first year. In 1912–13, 19 of the 30 girls trained for dressmaking [2] entered the trade, and 11 still remained at the end of their first year. Fifty-five [3] went out from the school in 1913–14 and only 21 used their training in a wage-earning capacity. This situation was predicted in the report of the investigation preliminary to the establishment of the school in 1911,[4] and the opportunity has grown even less favorable during the past four years with the increasing production and use of ready-made wear and the legal restrictions imposed on the young workers. In the spring of 1915 one dressmaker employing 10 to 15 girls reported two under 25; the largest shop employing 25 girls in rush season reported all over 20 years of age and most of them over 25 years of age.

There are practically no openings for the young sewers in Cambridge, though they have access to the Boston shops. Only 15 of the 78 girls trained in dressmaking in the Cambridge Trade School during its two years' existence entered the trade and were still working in it at the time of the investigation.

---

[1] 1 attended less than 9 months.

[2] 2 attended less than 9 months.

[3] 3 remained less than 9 months.

[4] A trade school for girls, United States Bureau of Education Bulletin, 1913, No. 17, p. 43.

CUSTOM SEWING TRADES.

EVOLUTION OF CUSTOM DRESSMAKING.

Custom dressmakers in Boston in their efforts to compete with the factory product are developing along three distinct lines, all of which mean continually decreasing opportunities for the young, unskilled workers. First, certain employers, custom dressmakers, tailors, and milliners, are forming partnerships and developing large, high-class shops in which they combine the production of custom and stock dresses made in their own shop, sale of good quality factory-made dresses, and production and sale of custom and wholesale millinery.[1] Such a shop on Boylston Street is owned by a firm consisting of a tailor and two dressmakers, each of whom 10 years ago had a shop of his own, but who, by combining, have a large, attractive store opening off the street and occupying two floors. Since much of their stock is factory made, they need only a comparatively small force of 32 women in the workroom, of whom 46.9 per cent are over 25 years of age. Second, certain custom dressmakers are attempting to offer the advantages of the factory product, i. e., a completed gown with little expenditure of effort and time—with the additional advantages of originality and individual adaptation provided by custom-made clothing—by so organizing their working force of "experienced workers only" that they can take the customer's measurements and, with one fitting, deliver the dress completely and satisfactorily made. Third, a new and as yet unique tendency has been discovered in another Boylston Street dressmaking shop, which is adopting wholesale methods of production on a small scale. This firm of two dressmakers is, in addition to doing custom work for their more fastidious patrons, planning models which are displayed to the buyers of department stores and making up individual dresses or dozens of dresses as ordered. A small force of 20 women was employed in this shop, three-fourths of whom were over 25 years of age.

The dressmakers of the smaller cities like Worcester and Cambridge, however, are unable to compete successfully with these two formidable competitors, the ready-made clothing and the large commercialized custom shop, and continue, if at all, on a decreasing scale with smaller output.[1]

The custom trade has been slow and unwilling to adjust itself to the changes necessitated by the rapid growth of the factory product and has suffered seriously by its competition. These illustrations suggest the development of the future, but do not promise larger opportunities for the young, inexperienced worker.

---

[1] For more detailed description, see Dressmaking as a trade for women in Massachusetts. Bull. No. 193, United States Bureau of Labor Statistics.

ATTITUDE OF EMPLOYERS TOWARD BEGINNERS.

The opportunity for the young worker is also largely determined by the attitude of the employer toward training wholly inexperienced or partially equipped workers from the trade schools. Conferences with 21 dressmakers, representing the several types of production in Boston, and two of the largest employers in Worcester in the spring of 1915, corroborated the findings of the study made in 1910–11.[1]

No employers would take "apprentices" because they cost more than they are worth. Five preferred to take in new girls as errand girls. Combining their reports, the method employed in this pseudo-apprenticeship, as M. Alfassa has termed it,[2] seems to be "to take a young girl who dusts in the morning and sweeps at night and answers the door and telephone during the day." Gradually she is sent on errands down town to match thread, silk, or trimmings, and during her spare moments she is "turned over to the waist or skirt girls, whichever need her most, and is taught to do the thing needed at the time. She sits and watches, and soon learns to do the simple work, making fringe, tassels, covering buttons, and sewing on trimming which has been basted. Then she may be allowed to overcast seams on linings, put braid on the bottom of skirts, sew on hooks and eyes, work on collars and sleeves, and gradually become a 'finisher.'" Dressmakers admit, however, that it is becoming increasingly difficult "to get teachable young girls," as the legal limit is raised.

A second and larger group of employers (15 in Boston and 2 in Worcester) who "haven't time to teach" or "don't take apprentices because they cost more than they are worth" will take young girls who can do plain sewing and train them or allow them to "pick up" the more advanced processes by working under the "head girl." These plain sewers may be trade-school girls, young European girls who have "always known how to sew," or older women of some experience, gained either in the trade or at home. Seven of these employers depended almost entirely on the trade school for their young workers.

The large commercialized shop which makes and completes a custom gown with one fitting employs "experienced workers only."

Some idea of the limited extent to which younger women are employed and also of the proportionate representation of the trade-school girls among these younger women was gained by an inquiry carried on in 19 Boston shops in the center of the city. The following table shows the results obtained:

---

[1] For description of the types of shops in the several cities, see Dressmaking as a trade for women in Massachusetts. Bul. No. 193, of United States Bureau of Labor Statistics.

[2] Georges Alfassa: La crise de l'apprentissage, in Annales des Sciences Politiques, July, 1905.

TABLE 123.—NUMBER OF GIRLS OVER 25 AND 25 YEARS AND UNDER EMPLOYED IN EACH OF 19 DRESSMAKING SHOPS IN BOSTON.

Locality.	Number of women wage earners employed.				
	Total.	Over 25 years of age.	25 years of age and under.		
			Total.	Trade-school girls.	Non-trade-school girls.
Boylston Street:					
Shop No. 1	69	47	22	16	6
Shop No. 2	50	35	15	9	6
Shop No. 3	45	41	4	2	2
Shop No. 4	35	21	11	9	2
Shop No. 5	32	15	17	4	13
Shop No. 6	28	28	......	......	......
Shop No. 7	25	23	2	2	......
Shop No. 8	25	14	11	2	9
Shop No. 9	25	23	2	1	1
Shop No. 10	25	10	15	1	14
Shop No. 11	25	7	18	15	3
Shop No. 12	20	15	5	2	3
Shop No. 13	17	6	11	8	3
Shop No. 14	8	8	......	......	......
Massachusetts Avenue:					
Shop No. 15	16	13	3	1	2
Shop No. 16	8	5	3	......	3
Shop No. 17	7	5	2	......	2
Tremont Street:					
Shop No. 18	10	1	9	9	......
Washington Street:					
Shop No. 19—					
Costume department	23	11	12	4	8
Tailoring department	1	1	......	......	......
Busheling	9	8	1	......	1
Alterations	34	31	3	......	3
Total Washington Street shop	67	51	16	4	12
Grand total	537	371	166	85	81
Per cent	100.0	69.1	30.9	15.8	15.1

There seems to be no relation between the size of the shop and the number of younger women employed. No. 1, with 69 employees, had 31.9 per cent aged 25 or under, while the Washington Street shop, No. 19, with a total of 67, had only 23.9 per cent in this age group. Five of the Boylston Street shops had 25 employees each, but the proportion of those aged 25 or under in these shops varied from 8 per cent in No. 7 and No. 9 to 72 per cent in No. 11. Taking the whole group of employees, 537, those aged 25 or under formed less than one-third (30.9 per cent).

The 85 trade-school girls employed in these shops formed 15.8 per cent of the total working force, and also constituted more than one-third (38.6 per cent) of the 220 trade-school girls at work in dressmaking.[1]

ATTITUDE OF EMPLOYERS TOWARD TRADE SCHOOLS AND TRADE-SCHOOL GIRLS.

All of these shops had employed trade-school girls in the past, if not at the time of the visit. These were the largest and highest class of shops in the several districts, and consequently the criticisms and suggestions the employers here made concerning the trade-school girls are worth consideration. The criticisms vary widely, because they are formed as a result of experience with particular girls, but some may yield suggestions for constructive development. These criticisms may be grouped in two classes—(1) those covering the school and (2) those relating to the girls.

---

[1] 423 had gone into dressmaking previous to September, 1914, and 220 were still employed in the trade when visited in the fall of 1914.

1. "The school should be in closer touch with the trade," is the universal statement. "Employers are not consulted about what they require or need." "The teachers should know the latest styles and teach them." The question of teaching and spending time on making a boned lining, for instance, when no dressmaker uses them, is a point of disagreement between school and employer.

"Trade atmosphere" is another subject of discussion. This is, of course, not an easy thing to develop in a school. "It is not necessary to keep trade hours," said one employer, "but trade conditions for a specific period, perhaps three or four hours a day." "Trade atmosphere," as explained by employers, means (1) appreciation that time is money and that every moment should count in results, whether the teacher is in or out of the room; (2) continuous application for a sufficiently long period to provide the prospective worker with some appreciation of pressure of work, the method of procedure in a business shop, rather than that of a classroom. "Girls are not kept steadily enough at work." "The school spends too much time on other things." "The girls never seem to know what to do next. They always wait to be told."

2. The general complaint from practically all employers is that "The trade-school girls aren't worth $6 at first," which is the placement wage asked by the Boston Trade School. The reasons advanced may be classified on the basis of speed, responsibility, technique, and attitude.

a. Speed.

"They are too slow."

"They waste too much time waiting to be told what to do next."

"They draw their needle through in such an exasperatingly leisurely fashion."

b. Responsibility.

"They need too much supervision."

"They can't do anything unless it is pinned for them, then they are likely to do it wrong."

"They can't be left to work alone. They are constantly asking for directions, so I prefer older and more experienced workers."

"They lack a conscientious and responsible trade attitude."

"Their idea of workroom discipline is little developed."

c. Technique.

"Their technique is inadequate."

"They are not adequately skilled in manipulation."

"They have not enough training in up-to-date methods and on materials in vogue."

from those in the trades for which they are trained. The majority begin work at 16 years or over, though this differs with the standing of the family, since economic pressure may oblige the girl to go to work at an earlier age. In general the trade-school girls in Massachusetts come from homes of a higher degree of comfort than has been supposed. Their contribution to the family income does not show the existence of great economic pressure in the home; in the majority of cases there were few dependents (young brothers or sisters, invalids, or nonproducers of any kind), and usually, also, there were other wage earners besides the father in the family. A little more than one-tenth in Boston and one-fourth in Worcester had worked before entering the trade school. In Boston one-eighth (12.6 per cent) and in Worcester nearly one sixth (15.7 per cent) had stayed at home for a time after leaving the public schools, but the majority had gone directly from the ordinary schools to the trade school, as is true in regard to any secondary school.

CHAPTER VII.—INDUSTRIES FOR WHICH TRADE SCHOOLS TRAIN.

BASIS OF TRADE TRAINING.

Trade training for girls, which was first established in the two traditional and primary home arts—the making of clothing and the preparation of food—is, after 10 years of experimentation in Massachusetts, still confined to these two occupations. The chief emphasis from the beginning in the three trade schools has been on the hand-sewing trades, custom dressmaking, and millinery. Electric power-machine operating has not been introduced in the Cambridge school and occupies a relatively small place in the Boston and Worcester trade schools.

Both friends and critics are beginning to query (1) to what extent does the trade school understand and correlate its training with trade needs and demands; and (2) to what degree does the school meet the needs of the trade for young workers? Some light is thrown on these questions through the experience of the girls who go out from the trade school. But there is still much to be learned through study of these industries themselves, to discover why a comparatively small proportion utilize their training and why certain types of girls do not succeed. An appreciation of the trend of the industry for which training is offered is fundamental. A personal knowledge of the opportunities for initiation of young partially equipped workers and of their opportunities for advancement with increasing experience is necessary to avoid oversupply. Only through intimate acquaintance with the local industries and shops can the school develop the educational possibilities within the trade, and successfully direct and adjust individual pupils to the industries for which they have the requisite qualifications.[1]

WOMEN'S CLOTHING TRADES.

The women's clothing trades which constitute the basis for trade training have been undergoing a tremendous industrial reorganization during the last 25 years with two results: (1) New York has practically monopolized the trade, controlling about two-thirds of the of the wages paid.[a] The wholesale trade of New York City largely controlled the situation in the United States, 66.4 per cent of the wage earners, 71.2 per cent of the value of product and 68.9 per cent of the wages paid in this branch of the trade centering in New York. The extraordinary increase in the millinery and lace goods trade reported in 1910 for the United States and such cities as Boston[b] as shown in the following table, seems to give official verification to the obvious evolution which may be observed in this trade—the increasing use of factory-made hats.

---

[1] Three studies made by the Department of Research of the Women's Industrial and Research Union, aiming to accomplish this end have already been published, as follows: Dressmaking as a trade for women in Massachusetts, Bul. No. 193, United States Bureau of Labor Statistics; Boot and shoe making in Massachusetts as a vocation for women, Bul. No. 180, United States Bureau of Labor Statistics; and Millinery as a trade for women, by Lorinda Perry. This discussion is presented in order to set forth the changing conditions since these studies were made, and their relation to trade-school problems.

TABLE 123.—GROWTH OF MILLINERY AND LACE GOODS INDUSTRIES FROM 1900 TO 1910 IN THE UNITED STATES AND IN NEW YORK CITY AND BOSTON.

Locality and year.	Establishments.		Wage earners.		Wages paid.		Capital invested.		Value of product.	
	Number.	Per cent of increase over 1900.	Number.	Per cent of increase over 1900.	Amount.	Per cent of increase over 1900.	Amount.	Per cent of increase over 1900.	Amount.	Per cent of increase over 1900.
United States:[1]										
1900	591	......	16,871	......	$5,818,000	......	$10,765,000	......	$29,469,000	......
1910	1,579	167.2	39,201	132.4	16,308,000	180.3	35,705,000	231.7	85,894,000	194.9
New York City:[2]										
1900	383	......	11,213	......	4,014,000	......	7,692,000	......	20,984,000	......
1910	886	131.3	20,561	83.4	9,419,000	134.7	19,413,000	152.4	51,239,000	144.2
Boston:[2]										
1900	18	......	319	......	152,000	......	151,000	......	716,000	......
1910	65	261.1	1,454	355.8	580,000	281.6	1,254,000	730.5	3,425,000	378.4

[1] United States Census, 1910, Manufactures, Vol. VIII, p. 618.

[2] Idem, Vol. IX, pp. 524, 862. None reported for Worcester and Cambridge.

"We don't touch a less-than-$10 hat in our workroom," said a trimmer in the millinery workroom of a department store in Boston. "Those selling for less than that come direct from the factory." "We don't need a designer any more," said an employer of an exclusive millinery shop. "We get our hats from New York. The machine is monopolizing the millinery trade." "I go to New York every month and the buyer goes every week," said the designer of the millinery department of a women's clothing store. "We buy models which I have the makers copy." "We don't employ as many trimmers the last year or two," was the remark of an employer of a large fashionable hat and gown shop.

Three competitors in the millinery trade are driving out the custom milliner—the straw and velvet hat factories, the wholesale houses, and the department stores. The straw-hat factories used to be content with a six months' season, some dovetailing with the manufacture of felt hats. But present-day manufacturers are unwilling to allow their factories to lie idle half the year. A good many employers, therefore, are making velvet hats in the summer. When the custom milliner returns to town in the fall, she finds the people on the street all equipped with velvet hats. "I suppose your factory is closing now," said the investigator in May to the designer in a straw-hat factory. "Oh, no, we are beginning to make up some chiffon, net, and velvet hats now," was the response. The wholesale stores, together with the department stores, supply a large number of the women with hats. Frames in all colors, shapes, and sizes can be bought at any price. Bows will be made free of charge by a special "bow maker," who has many samples from which the customer may choose, and in some stores this trimming will be put on the hat free of charge. Flowers, feathers, and all kinds of trimming are displayed for sale at all prices, and the women who patronize these stores can buy their hats at a small fraction of the price charged by the custom milliner. For this reason the custom milliner is doomed. It is useless to talk about educating the public up to higher standards of taste and appreciation of custom work when the great majority of women must get the best values possible for the least money.

---

[a] United States Census, 1900, Manufactures, Vol. VIII, p. 624.

[b] United States Census, 1910, Manufactures, Vol. VIII, p. 618; Vol. IX, p. 862.

The factories and department stores have two powerful weapons in the struggle for supremacy—lower prices for the hats and longer seasons, because of dovetailing of duties for the workers. The girls in the millinery department of the stores are frequently shifted to the sales departments and clerical offices during the dull seasons. Seven of the straw-machine operators from the trade school lengthened their seasons by working on velvet hats in the summer.

The custom milliner, like the custom dressmaker, is attempting to maintain her place in the trade by offering both ready-made and custom hats and by combining with dressmakers and tailors to equalize the seasons, but she, like the custom dressmaker, is increasingly restricted to the wealthy and fastidious clientele who buy of her only to secure individuality and exclusiveness of style.

The evolution in the millinery trade has an important significance for trade educators. The increasing growth of the wholesale at the expense of the custom branch at once decreases the opportunity for the young worker to acquire or supplement her training in the shop and decreases the opportunity at the top by diminishing the number of trimmers and designers required. The trade does not, however, show the great decline in the proportion of young girls employed which appears in the dressmaking trade. The following table shows the distribution by age of milliners and milliners' apprentices in 1900 and in 1910:

TABLE 124.—NUMBER AND PER CENT, IN EACH AGE GROUP, OF MILLINERS EMPLOYED IN THE UNITED STATES, 1900 AND 1910.

Age.	Milliners of each specified age employed each year.				
	Number.		Per cent.		Increase over 1900.
	1900[1]	1910[2]	1900	1910	
Under 16 years	3,184	3,539	3.7	2.7	+11.2
16 and under 21 years	22,401	34,897	26.0	27.2	+55.8
16 years and over	60,535	90,002	70.3	70.1	+48.7
Total	86,120	128,438	100.0	100.0	+49.2

[1] United States Census, 1900, Occupations, cxxxiv.
[2] United States Census, 1910, vol. iv, Occupations, p. 312.

While the proportion of girls under 16 in the trade decreased between 1900 and 1910, the actual number increased slightly. The proportion under 21 apparently differs considerably from place to place, and from one branch of the trade to another. Thus, this table shows that the proportion in that age group was, in 1910, for the United States as a whole 30 per cent, but a survey of the trade made in New York City in 1914 [1] showed that 40 per cent of the 1,355 women studied were under 21 years of age. This proportion differed in the three branches of the trade, 47 per cent in retail shops, 33.2 per cent in retail-wholesale, and 30.7 per cent in wholesale shops being under 21 years of age. The workers under 18 years of age, who constituted 12 per cent of the total number, show a somewhat similar distribution. In the retail shops they formed 15.5 per cent, in the retail-wholesale shops 11.2 per cent, and in the wholesale shops 11.5 per cent of the total number of workers.

ATTITUDE OF EMPLOYERS TOWARD TRADE-SCHOOL GIRLS.

The attitude of employers toward beginners in millinery was less favorable even than it was toward those in dressmaking. "Do you take green girls of 14 to 18?" was asked of an employer in a high class shop. "We don't like to, but they do get in," he said. "How does a new worker learn?" a young woman in the shop was asked. "You sit down beside another girl and she tells you what to do. If you are not quick or she does not like you, you do not learn much. The trimmer is not expected to teach you."

The question, "How does the trade-school girl meet the needs of the employer?" brought a variety of answers which illustrate the difficult problems confronting the trade schools. "Oh, we just think of them as mere babies," said some; "we don't depend on them at all; we put them with a maker as a helper." In general, the grounds of complaint against the trade-school girls were somewhat as follows:

---

[1] Mary Van Kleeck: Wages in the millinery trade. New York Factory Investigating Commission, p. 64.

"Lack of personal responsibility. They are accustomed to lean on the teacher too much."

"Lack of confidence and initiative."

"Incapacity for realizing that a thing must be done in a definite time."

"Lack of accuracy and appreciation of necessity for absolutely exact measurements."

SUMMARY OF EFFECT OF CHANGES IN CUSTOM SEWING TRADES UPON OPPORTUNITIES FOR TRADE-SCHOOL GIRLS.

Here again, as in the case of the girls trained for dressmaking, the criticisms relate rather to immaturity than to training. And this immaturity is the tremendous problem confronting the trade school, which has been established to train young girls for trades which are demanding increasing maturity, skill and experience from their workers.

A second serious problem grows out of the need for experience in handling the materials used in the trade. This is a more serious problem in teaching millinery than dressmaking, for in dressmaking the learner can get preliminary experience on cheap cotton materials, while in millinery the use of such materials simply does not give the experience required. To give practical training, the hats must be made of straw, velvet, silk or net, such as is used in the trade, for it is the manipulation, stretching, and "making" of these materials in which the girls must be skilled. Many complaints were directed against the inexperience of the trade-school girls in this particular: "If the trade-school girls were accustomed to work with good materials they would make a better showing." "A trade school can't afford to keep up with the latest, and millinery changes every year, so if you don't know the latest things you aren't much good." "The reason trade schools can't succeed is because they can't afford good materials. Silk and velvet of the best quality are too expensive."

Summarizing the situation, the trades on which the trade schools of Massachusetts have laid most emphasis have undergone great changes during this 10-year period, and as a result make different demands and requirements of their workers, while the motive and the methods of the schools have changed very little. The schools have trained the great proportion of their pupils in custom dressmaking (Boston 62 per cent, Worcester 66.3 per cent, and Cambridge 69 per cent) and the latest returns, January, 1915, show a still larger proportion training for this trade. (Tables 3 and 4.) Statistics, however, show a tremendous decline in this custom branch of the women's clothing trade, and increasing discrimination against the young worker under 21 years of age. While the millinery trade also is being rapidly monopolized by the wholesale branch of the trade, the proportion of young workers remains about the same, and with the growth of the trade, shows an increase of 50.2 per cent in the workers under 21 years of age. The trade schools recently have shown a tendency to restrict the number of pupils who are being trained for this trade, largely as a result of two difficulties which have been encountered by the school: (1) the problem of meeting the trade demands for maturity and technical ability through these young and immature girls and (2) the inability of the young workers from an economic standpoint to maintain themselves in a trade with employment seldom exceeding half the year.

Owing largely to this second difficulty, the sifting out from this trade has been exceptionally heavy. The following table shows the number of girls who, having entered the trades for which they had been trained, have left them after a longer or shorter experience:

TABLE 125.—NUMBER OF GIRLS WHO USED EACH SPECIFIED TRADE AND NUMBER AND PER CENT OF THESE WHO LEFT THE TRADE.

Trade entered.	Number of girls using their trade.	Girls dropping out of the trade for which they were trained.	
		Number.	Per cent.
Dressmaking	423	203	48.0
Millinery	157	101	64.3
Machine operating on—			
Cloth	81	44	54.3
Straw hats	72	41	56.9
Cooking and design	11	3	27.3
Total	744	392	52.7

Very nearly two-thirds of the girls trained for millinery have definitely left the trade. In only one previous year was the sifting as great as during the last year studied, 1913–14. Sixty per cent of those who went into the millinery shops during the year had left the trade by the end of the first year's experience.

POWER MACHINE SEWING TRADES.

The trades depending on the electric-power sewing machines have not yet received much attention in the trade schools of Massachusetts, although the Boston Trade School introduced cloth power-machine operating during its first year. Only 81 girls have gone out from the school into the trade and remained one week or more, and more than one-half of these have left it. Power-machine operating on straw hats was introduced in the year 1905–6, and nearly the same number of girls (72) have gone out into the industry, although it is a much smaller trade than cloth power-machine operating from the standpoint of number of establishments and women employed. More than one-half these girls also have left the trade.

NEED OF TRAINING FOR THESE TRADES.

The rapid monopoly of the production of women's clothing and millinery by the wholesale manufacturing branches of these trades, and the small attempts of the two trade schools to train for these manufacturing industries suggest the need for a study of their educational and industrial opportunities in Boston and Worcester. Curiously, the stigma of the factory from a social standpoint still survives in the twentieth century,[1] and trade educators find this prejudice a difficult obstacle to overcome in the minds of girls and parents. May not the emphasis of the school on the custom sewing trades give strength to this popular prejudice? Yet published reports of these trades in New York City[2] show opportunity for satisfactory working conditions, wages and seasons, and a tendency toward continuous improvement, with the establishment of better sanitary conditions and higher wage scales through organized and cooperative efforts of employers and employees. Finally, in addition to the increasing numbers employed and the generally satisfactory working conditions offered, these manufacturing trades are worthy of study from the standpoint of trade training, because of the difficulty of access for the young girl without some equipment in (1) the knowledge of the operation of the machines and (2) the ability to do the simple processes of straight stitching.

Without a personal study of the enormous industry "women's clothing, factory product," the educator could have little conception of its many divisions based on type of product and involving varying degrees and kinds of skill of the women workers. As a suggestive list for purposes of study for trade training, these many subtrades might be grouped as follows:

Women's clothing:
  a. Light-weight product (employing women primarily and ranked in order of skill required)—
    1. Dresses and waists (silk, woolen, linen, and cotton).
    2. Petticoats (silk and cotton).
    3. Neckwear.
    4. Children's clothing.
    5. Muslin underwear.
    6. Shirts, middy blouses, kimonos, house dresses, bath robes, bathing suits.
    7. Aprons.
  b. Heavy-weight product (employing men primarily)—
    1. Cloaks, suits, and skirts.
  c. Still other large industries involving the electric-power sewing machines provide good opportunities for employment and trade training—
    1. Scrim, lace, and net curtains—Light-weight product.
    2. Corsets—Medium-weight product.
    3. Raincoats and overalls—Heavy-weight product.

---

[1] Katherine Anthony: Mothers who must earn, p. 51.

[2] Buls. Nos. 146 and 147, United States Bureau of Labor Statistics.

There seems to be a rather general opinion that "power-machine operating" is nothing more than operating a power machine and that mastery of the power and some knowledge of the machine will enable a girl to work with equal ease and adaptation on any one of these numerous products. "With a little practice on power machines * * * she could sit down at a power machine and become a pieceworker without delay because she knows how to control her machine," writes one educator.[1] "School training for specific operations is not necessary, for these operations are simple and can be learned in a few days or weeks at most in the factory itself."[2] But this is not true of power sewing-machine operating, as a study of the various branches of the industry and of the experience of the girls shows. A girl who has worked on aprons, on which the chief requisites are straight stitching and speed, might find it impossible to stitch chiffon waists, which require a knowledge of how to hold flimsy materials without stretching or mussing, how to put in sleeves, how to put together shoulder seams, underarm seams, etc., or to stitch corsets, which are usually made of heavy materials but require much shaping in joining the rounded and curving edges.

The fundamental basis on which trade training for the power-machine sewing trades must be developed is that of product. The type of product manufactured in the city in which the trade schools are established, therefore, determines the opportunities for skill and the character of the training which will prove valuable to the prospective worker.

Unfortunately, it is impossible to discover from official statistics the number of firms and workers engaged in the manufacture of these many products, as they are grouped under "men's clothing, factory product," or "women's clothing, factory product." The Massachusetts Bureau of Statistics reported 148 firms and 4,353 employees (1,181 men and 3,172 women) employed in the manufacture of women's clothing in metropolitan Boston in 1913.[3] An investigation by the United States Bureau of Labor Statistics of the cloak, suit, and skirt industry in Boston, covering the period from August, 1912, to July, 1913, estimated the total working force of this branch of the industry in Boston to be about 3,000 workers,[4] employed in 40 shops. If the returns secured by the two bureaus are comparable the cloak, suit, and skirt industry of Boston accounts for more than one-fourth of the firms and employs 69 per cent of the workers in the women's clothing industry in this city. Fairchild's Directory of Men's and

---

[1] Anna C. Hedges: Wage worth of school training, p. 7.

[2] Idem, p. 3.

[3] Massachusetts Bureau of Statistics: Twenty-eighth Annual Report on the Statistics of Manufactures, 1913.

[4] Wages and regularity of employment in the cloak, suit, and skirt industry, Bul. No. 147, United States Bureau of Labor Statistics, p. 70.

Women's Wear in Boston for 1915 reported 475 manufacturers of women's wear, 54 per cent producing light-weight product, such as dresses, waists, petticoats, neckwear, children's clothing, underwear, and aprons, and 46 per cent producing heavy-weight product, such as cloaks, suits, skirts, and raincoats.

EXTENT AND CHARACTER OF THESE TRADES IN BOSTON AND WORCESTER.

The virtual monopoly of the women's clothing trade by New York City largely determines the types of manufacture found in Boston and Worcester. The dress and waist industry, offering the highest opportunities for skill and wage advancement for women and most dependent on changing styles and fashions, naturally centers in New York, the fashion center of the United States. The study of the industry in New York in 1913 disclosed 707 shops employing 36,858 workers, the proportions being a little over four-fifths women and less than one-fifth men.[1] As a result only a comparatively few dress and waist factories are found in Boston. The majority of these are small and with two exceptions their product is limited to medium and cheap grade dresses ranging at wholesale from $3 to $16.50 each. These factories cater in general to a limited market, largely New England, and to a large extent outside Boston.

One large waist factory in Worcester, employing a maximum of 125 workers, manufactures silk and cotton waists at a wholesale price of $9, $16.50, and $18 a dozen. Because of the competition of New York, this firm is developing a western market for its product. One or two smaller dress factories manufacture medium and cheap grade products in Worcester.

Other light-weight products, such as underwear, neckwear, etc., seem to be about the same grade and the majority of factories are comparatively small.

The cloak, suit, and skirt industry is best organized from the standpoint both of labor and of manufacturers and represents the highest grade of product of the women's clothing trade in Boston. The men, however, practically monopolize the skilled occupations in this branch of the trade, because of their greater strength and physical endurance, and their skill in garment construction acquired through the apprenticeship system abroad.

The manufacture of corsets is the predominant industry in Worcester and is primarily a women's industry.[2] The power-machine operating processes are difficult to acquire and many of the machines are complex.

---

[1] Wages and regularity of employment in the dress and waist industry, Bul. No. 146, United States Bureau of Labor Statistics, p. 29.

[2] For description of processes and wages, see First Annual Report of the Minimum Wage Commission of Massachusetts, 1914.

The United States Census reported 4,063 power sewing machine operators (women) in Boston in 1910, one-third (33.4 per cent) of whom were under 21 years of age, and 2,132 in Worcester, 41.5 per cent of whom were under 21 years of age.[1] That the demand for skilled power-machine operators is difficult to fill, is practically a universal complaint in Boston. This is not true in Worcester at present because of the industrial depression in the manufacture of underwear.

ANALYSIS OF CHARACTERISTICS OF PRODUCTION IN FACTORIES MAKING LIGHT-WEIGHT PRODUCTS.

Study of product, as has been pointed out, must be the basis of trade training, for four reasons: First, it determines the method and characteristics of production, deciding (1) whether it is characterized by specialization of processes and subdivision of labor and (2) what processes are done by women. Second, it determines the requisites of the workers. Dresses and waists require technical skill and knowledge of construction necessary to make a waist throughout. Neckwear, corsets, and straw hats all need a very different kind of manipulative skill in handling difficult materials. Aprons, underwear, kimonos, and house dresses require more knowledge of and skill in the use of special machines, together with capacity for speed. Cloaks, suits, skirts, raincoats, and overalls require in varying degrees knowledge of garment construction and physical strength. Third, the type of product determines the opportunities to acquire and supplement trade training, for the better the product, the less willing is the manufacturer to train new workers. Fourth, the product determines wage-earning capacity in relation to the amount of skill required and in relation to the regularity and length of working seasons.

An intimate understanding of the requirements of the product ought to forearm the school against misfits, such as reported by one indignant mother, "No, she made a failure of it. The school placed her in a chiffon waist factory. She would have been more successful on overalls."

Since there seems to be little conception on the part of the public of the wide variation in the necessary qualifications of the workers in the different branches of the factory sewing trades, a suggestive analysis of the characteristics of production discovered in the factories making light-weight product is offered for consideration.

---

[1] United States Census, 1910, Vol. IV, Occupations, pp. 540, 607.

MACHINE OPERATING ON LIGHT-WEIGHT PRODUCTS.

A. Complete products.
  1. Garments made.
    a. Dresses.
    b. Waists.
    c. Petticoats.
    d. Skirts.
  2. Materials used.
    a. Silk of all kinds.
    b. Expensive cotton and linen goods.
    c. Chiffon and nets.
    d. Woolens and velvets.
  3. Characteristics of production.
    a. A complete product as distinguished from one process.
    b. Expensive materials.
    c. Simple power machines.
    d. Little or no subdivision of work.
    e. Selling qualities lie chiefly in its excellence and conformity to the most recent styles.
  4. Organization.
    a. Large amount of handwork. Small investment in special machines. Hemstitching, felling, and cutting machines sometimes used. Frequently all special stitching is sent out to other factories. Cutting of expensive materials frequently done with hand shears and only two or three layers cut at one time.
    b. Organization of work for practically independent production. General supervision of workers. Little subdivision of labor.
    c. A sample of each kind of garment completed to serve as a model from which each operator must be able to work.
    d. Predominance of women workers—few men.
  5. Requirements of worker.
    a. Knowledge of dress construction:
      1. Knowledge of how to put a dress together by seeing sample.
      2. Ability to work with little or no supervision.
      3. Interest in complete product.
    b. Manipulative skill—deftness in handling difficult materials.
    c. Accuracy and good work.
    d. Speed in so far as compatible with good work.
      1. Experience.
      2. Understanding of textiles.
      3. Knowledge of tricks of the trade.
    e. Knowledge of simple power-machine operating.
  6. System of teaching (inexperienced workers can not be used and are seldom taught in the factory).
    a. New or difficult manipulations shown by forewoman.
    b. Waist maker can learn skirts, or vice versa.
    c. Forewoman gives out work with necessary directions and is sometimes responsible for certain processes.
    d. Little supervision because of skilled workers.

B. Simple product.
    1. Materials used.
        a. Firm cotton material, used in—
            1. Aprons.
            2. Kimonos and bath robes.
            3. Rompers.
            4. Men's shirts.
            5. Petticoats.
            6. House dresses.
            7. Athletic waists and middy blouses.
        b. Lace, scrim, net, and light-weight cotton used in—
            1. Curtains.
            2. Underwear (with lace trimming).
            3. Neckwear (men's and women's).
            4. Wash waists and dresses.
    2. Characteristics of production.
        a. Highly specialized processes.
        b. Inexpensive materials.
        c. Special machines.
        d. Made in quantities.
        e. Selling qualities lie chiefly in its cheapness and utility.
    3. Organization.
        a. Primarily machine work—large investment of capital in special machines, such as—
            1. Hemstitching—picot attachment.
            2. Tucking—1 to 6 needle machines.
            3. Button sewing.
            4. Buttonhole.
            5. Pleating.
            6. Felling.
            7. Embroidery cutting.
            8. Union Special for finishing raw edges of seams (overcasting).
            9. Putting on bands and running elastic.
            10. Attachments.
                a. Hemmer.
                b. Ruffler.
                c. Cutter to make picot edge, to cut edges any width from seam.
                d. Apron belt maker.
            11. Two-needle machine sewing bias bands, setting in sleeves.
        b. Detailed plan of organization to secure rapid movement of work and accurate check in all workers—
            1. High specialization of process—subdivision of labor.
            2. Large amount of supervision of workers.
            3. Elaborate system of checking workers to trace mistakes.
        c. Predominance of women.
    4. Requirements of worker.
        a. Accuracy.
            1. Edges together straight.
            2. Straight seams.
            3. Mitering.
        b. Understanding of machines.
        c. Speed, which depends on—
            1. Experience in the work.
            2. Knowledge of short cuts and of where work can be slighted.

B. Simple product—Concluded.
    4. Requirements of worker—Concluded.
        d. Ability to comprehend and follow directions, as finished product is not shown.
        e. Interest in amount produced, since production is monotonous.
    5. System of teaching (unskilled workers can be taught).
        a. By showing specific processes, not product.
        b. Simple machines, and simple processes first.
        c. Special machines and difficult processes if learner is willing to be taught.
        d. Forewoman is teacher and overseer, not a worker. Several in a large shop.

OPPORTUNITIES AND REQUIREMENTS IN DIFFERENT BRANCHES OF THESE TRADES.

A brief presentation of the qualifications demanded of workers and of wage opportunities in the factories producing the varied types of product in the power-sewing machine trades may serve to point the way to adaptation of trade training to the needs of the trade.

DRESSES AND WAISTS.

Dress and waist factories, making a product which ranged in price from $3.75 to $20 each, showed several common characteristics. First, the great variety of "numbers" or "lines" produced necessitates an almost infinite number of styles or models. One waist factory reported that "formerly we made new designs twice a year, but styles change too fast for that now." One factory making a high-grade product had 300 "active numbers," and in April reported that they had designed 70 new ones since January. Another waist factory had about 200 active styles. A dress factory required "the designers to produce a new model every day. The success of the firm depends on up-to-date models."

The great variety in lines produced has an important significance for the workers, for "the girls are shown the style of the waist and after having been shown once, they always know the style by the number afterwards." In other words, the worker must be so familiar with the construction of the dress or waist that she knows by looking at the model how to put together the bundle of heterogeneous pieces delivered to her at the window. "A sample hangs on the wall or is put on the figure which the girls can look at. They are supposed to be able to look at the model and put the waist together." "She has need of a dressmaker's knowledge of the way things go together, as she has to make very complicated garments by looking at the model."

One of the greatest requirements of workers in a high-class dress and waist factory is technical knowledge of the construction of a garment, for in the manufacture of the better-grade product, the tendency seems to be toward general construction, i. e., having one person make practically the complete garment, instead of special-

TABLE 124.—NUMBER AND PER CENT, IN EACH AGE GROUP, OF MILLINERS EMPLOYED IN THE UNITED STATES, 1900 AND 1910.

Age.	Milliners of each specified age employed each year.				
	Number.		Per cent.		Increase over 1900.
	1900[1]	1910[2]	1900	1910	
Under 16 years	3,184	3,539	3.7	2.7	+11.2
16 and under 21 years	22,401	34,897	26.0	27.2	+55.8
16 years and over	60,535	90,002	70.3	70.1	+48.7
Total	86,120	128,438	100.0	100.0	+49.2

[1] United States Census, 1900, Occupations, cxxxiv.
[2] United States Census, 1910, vol. iv, Occupations, p. 312.

While the proportion of girls under 16 in the trade decreased between 1900 and 1910, the actual number increased slightly. The proportion under 21 apparently differs considerably from place to place, and from one branch of the trade to another. Thus, this table shows that the proportion in that age group was, in 1910, for the United States as a whole 30 per cent, but a survey of the trade made in New York City in 1914[1] showed that 40 per cent of the 1,355 women studied were under 21 years of age. This proportion differed in the three branches of the trade, 47 per cent in retail shops, 33.2 per cent in retail-wholesale, and 30.7 per cent in wholesale shops being under 21 years of age. The workers under 18 years of age, who constituted 12 per cent of the total number, show a somewhat similar distribution. In the retail shops they formed 15.5 per cent, in the retail-wholesale shops 11.2 per cent, and in the wholesale shops 11.5 per cent of the total number of workers.

ATTITUDE OF EMPLOYERS TOWARD TRADE-SCHOOL GIRLS.

The attitude of employers toward beginners in millinery was less favorable even than it was toward those in dressmaking. "Do you take green girls of 14 to 18?" was asked of an employer in a high class shop. "We don't like to, but they do get in," he said. "How does a new worker learn?" a young woman in the shop was asked. "You sit down beside another girl and she tells you what to do. If you are not quick or she does not like you, you do not learn much. The trimmer is not expected to teach you."

The question, "How does the trade-school girl meet the needs of the employer?" brought a variety of answers which illustrate the difficult problems confronting the trade schools. "Oh, we just think of them as mere babies," said some; "we don't depend on them at all; we put them with a maker as a helper." In general, the grounds of complaint against the trade-school girls were somewhat as follows:

---

[1] Mary Van Kleeck: Wages in the millinery trade. New York Factory Investigating Commission, p. 64.

"Lack of personal responsibility. They are accustomed to lean on the teacher too much."

"Lack of confidence and initiative."

"Incapacity for realizing that a thing must be done in a definite time."

"Lack of accuracy and appreciation of necessity for absolutely exact measurements."

SUMMARY OF EFFECT OF CHANGES IN CUSTOM SEWING TRADES UPON OPPORTUNITIES FOR TRADE-SCHOOL GIRLS.

Here again, as in the case of the girls trained for dressmaking, the criticisms relate rather to immaturity than to training. And this immaturity is the tremendous problem confronting the trade school, which has been established to train young girls for trades which are demanding increasing maturity, skill and experience from their workers.

A second serious problem grows out of the need for experience in handling the materials used in the trade. This is a more serious problem in teaching millinery than dressmaking, for in dressmaking the learner can get preliminary experience on cheap cotton materials, while in millinery the use of such materials simply does not give the experience required. To give practical training, the hats must be made of straw, velvet, silk or net, such as is used in the trade, for it is the manipulation, stretching, and "making" of these materials in which the girls must be skilled. Many complaints were directed against the inexperience of the trade-school girls in this particular: "If the trade-school girls were accustomed to work with good materials they would make a better showing." "A trade school can't afford to keep up with the latest, and millinery changes every year, so if you don't know the latest things you aren't much good." "The reason trade schools can't succeed is because they can't afford good materials. Silk and velvet of the best quality are too expensive."

Summarizing the situation, the trades on which the trade schools of Massachusetts have laid most emphasis have undergone great changes during this 10-year period, and as a result make different demands and requirements of their workers, while the motive and the methods of the schools have changed very little. The schools have trained the great proportion of their pupils in custom dressmaking (Boston 62 per cent, Worcester 66.3 per cent, and Cambridge 69 per cent) and the latest returns, January, 1915, show a still larger proportion training for this trade. (Tables 3 and 4.) Statistics, however, show a tremendous decline in this custom branch of the women's clothing trade, and increasing discrimination against the young worker under 21 years of age. While the millinery trade also is being rapidly monopolized by the wholesale branch of the trade, the proportion of young workers remains about the same, and with the growth of the trade, shows an increase of 50.2 per cent in the workers under 21 years of age. The trade schools recently have shown a tendency to restrict the number of pupils who are being trained for this trade, largely as a result of two difficulties which have been encountered by the school: (1) the problem of meeting the trade demands for maturity and technical ability through these young and immature girls and (2) the inability of the young workers from an economic standpoint to maintain themselves in a trade with employment seldom exceeding half the year.

Owing largely to this second difficulty, the sifting out from this trade has been exceptionally heavy. The following table shows the number of girls who, having entered the trades for which they had been trained, have left them after a longer or shorter experience:

TABLE 125.—NUMBER OF GIRLS WHO USED EACH SPECIFIED TRADE AND NUMBER AND PER CENT OF THESE WHO LEFT THE TRADE.

Trade entered.	Number of girls using their trade.	Girls dropping out of the trade for which they were trained.	
		Number.	Per cent.
Dressmaking	423	203	48.0
Millinery	157	101	64.3
Machine operating on—			
Cloth	81	44	54.3
Straw hats	72	41	56.9
Cooking and design	11	3	27.3
Total	744	392	52.7

Very nearly two-thirds of the girls trained for millinery have definitely left the trade. In only one previous year was the sifting as great as during the last year studied, 1913–14. Sixty per cent of those who went into the millinery shops during the year had left the trade by the end of the first year's experience.

POWER MACHINE SEWING TRADES.

The trades depending on the electric-power sewing machines have not yet received much attention in the trade schools of Massachusetts, although the Boston Trade School introduced cloth power-machine operating during its first year. Only 81 girls have gone out from the school into the trade and remained one week or more, and more than one-half of these have left it. Power-machine operating on straw hats was introduced in the year 1905–6, and nearly the same number of girls (72) have gone out into the industry, although it is a much smaller trade than cloth power-machine operating from the standpoint of number of establishments and women employed. More than one-half these girls also have left the trade.

NEED OF TRAINING FOR THESE TRADES.

The rapid monopoly of the production of women's clothing and millinery by the wholesale manufacturing branches of these trades, and the small attempts of the two trade schools to train for these manufacturing industries suggest the need for a study of their educational and industrial opportunities in Boston and Worcester. Curiously, the stigma of the factory from a social standpoint still survives in the twentieth century,[1] and trade educators find this prejudice a difficult obstacle to overcome in the minds of girls and parents. May not the emphasis of the school on the custom sewing trades give strength to this popular prejudice? Yet published reports of these trades in New York City[2] show opportunity for satisfactory working conditions, wages and seasons, and a tendency toward continuous improvement, with the establishment of better sanitary conditions and higher wage scales through organized and cooperative efforts of employers and employees. Finally, in addition to the increasing numbers employed and the generally satisfactory working conditions offered, these manufacturing trades are worthy of study from the standpoint of trade training, because of the difficulty of access for the young girl without some equipment in (1) the knowledge of the operation of the machines and (2) the ability to do the simple processes of straight stitching.

Without a personal study of the enormous industry "women's clothing, factory product," the educator could have little conception of its many divisions based on type of product and involving varying degrees and kinds of skill of the women workers. As a suggestive list for purposes of study for trade training, these many subtrades might be grouped as follows:

Women's clothing:

a. Light-weight product (employing women primarily and ranked in order of skill required)—

1. Dresses and waists (silk, woolen, linen, and cotton).
2. Petticoats (silk and cotton).
3. Neckwear.
4. Children's clothing.
5. Muslin underwear.
6. Shirts, middy blouses, kimonos, house dresses, bath robes, bathing suits.
7. Aprons.

b. Heavy-weight product (employing men primarily)—

1. Cloaks, suits, and skirts.

c. Still other large industries involving the electric-power sewing machines provide good opportunities for employment and trade training—

1. Scrim, lace, and net curtains—Light-weight product.
2. Corsets—Medium-weight product.
3. Raincoats and overalls—Heavy-weight product.

---

[1] Katherine Anthony: Mothers who must earn, p. 51.

[2] Buls. Nos. 146 and 147, United States Bureau of Labor Statistics.

There seems to be a rather general opinion that "power-machine operating" is nothing more than operating a power machine and that mastery of the power and some knowledge of the machine will enable a girl to work with equal ease and adaptation on any one of these numerous products. "With a little practice on power machines * * * she could sit down at a power machine and become a pieceworker without delay because she knows how to control her machine," writes one educator.[1] "School training for specific operations is not necessary, for these operations are simple and can be learned in a few days or weeks at most in the factory itself."[2] But this is not true of power sewing-machine operating, as a study of the various branches of the industry and of the experience of the girls shows. A girl who has worked on aprons, on which the chief requisites are straight stitching and speed, might find it impossible to stitch chiffon waists, which require a knowledge of how to hold flimsy materials without stretching or mussing, how to put in sleeves, how to put together shoulder seams, underarm seams, etc., or to stitch corsets, which are usually made of heavy materials but require much shaping in joining the rounded and curving edges.

The fundamental basis on which trade training for the power-machine sewing trades must be developed is that of product. The type of product manufactured in the city in which the trade schools are established, therefore, determines the opportunities for skill and the character of the training which will prove valuable to the prospective worker.

Unfortunately, it is impossible to discover from official statistics the number of firms and workers engaged in the manufacture of these many products, as they are grouped under "men's clothing, factory product," or "women's clothing, factory product." The Massachusetts Bureau of Statistics reported 148 firms and 4,353 employees (1,181 men and 3,172 women) employed in the manufacture of women's clothing in metropolitan Boston in 1913.[3] An investigation by the United States Bureau of Labor Statistics of the cloak, suit, and skirt industry in Boston, covering the period from August, 1912, to July, 1913, estimated the total working force of this branch of the industry in Boston to be about 3,000 workers,[4] employed in 40 shops. If the returns secured by the two bureaus are comparable the cloak, suit, and skirt industry of Boston accounts for more than one-fourth of the firms and employs 69 per cent of the workers in the women's clothing industry in this city. Fairchild's Directory of Men's and

---

[1] Anna C. Hedges: Wage worth of school training, p. 7.

[2] Idem, p. 3.

[3] Massachusetts Bureau of Statistics: Twenty-eighth Annual Report on the Statistics of Manufactures, 1913.

[4] Wages and regularity of employment in the cloak, suit, and skirt industry, Bul. No. 147, United States Bureau of Labor Statistics, p. 70.

Women's Wear in Boston for 1915 reported 475 manufacturers of women's wear, 54 per cent producing light-weight product, such as dresses, waists, petticoats, neckwear, children's clothing, underwear, and aprons, and 46 per cent producing heavy-weight product, such as cloaks, suits, skirts, and raincoats.

EXTENT AND CHARACTER OF THESE TRADES IN BOSTON AND WORCESTER.

The virtual monopoly of the women's clothing trade by New York City largely determines the types of manufacture found in Boston and Worcester. The dress and waist industry, offering the highest opportunities for skill and wage advancement for women and most dependent on changing styles and fashions, naturally centers in New York, the fashion center of the United States. The study of the industry in New York in 1913 disclosed 707 shops employing 36,858 workers, the proportions being a little over four-fifths women and less than one-fifth men.[1] As a result only a comparatively few dress and waist factories are found in Boston. The majority of these are small and with two exceptions their product is limited to medium and cheap grade dresses ranging at wholesale from $3 to $16.50 each. These factories cater in general to a limited market, largely New England, and to a large extent outside Boston.

One large waist factory in Worcester, employing a maximum of 125 workers, manufactures silk and cotton waists at a wholesale price of $9, $16.50, and $18 a dozen. Because of the competition of New York, this firm is developing a western market for its product. One or two smaller dress factories manufacture medium and cheap grade products in Worcester.

Other light-weight products, such as underwear, neckwear, etc., seem to be about the same grade and the majority of factories are comparatively small.

The cloak, suit, and skirt industry is best organized from the standpoint both of labor and of manufacturers and represents the highest grade of product of the women's clothing trade in Boston. The men, however, practically monopolize the skilled occupations in this branch of the trade, because of their greater strength and physical endurance, and their skill in garment construction acquired through the apprenticeship system abroad.

The manufacture of corsets is the predominant industry in Worcester and is primarily a women's industry.[2] The power-machine operating processes are difficult to acquire and many of the machines are complex.

---

[1] Wages and regularity of employment in the dress and waist industry, Bul. No. 146, United States Bureau of Labor Statistics, p. 29.

[2] For description of processes and wages, see First Annual Report of the Minimum Wage Commission of Massachusetts, 1914.

The United States Census reported 4,063 power sewing machine operators (women) in Boston in 1910, one-third (33.4 per cent) of whom were under 21 years of age, and 2,132 in Worcester, 41.5 per cent of whom were under 21 years of age.[1] That the demand for skilled power-machine operators is difficult to fill, is practically a universal complaint in Boston. This is not true in Worcester at present because of the industrial depression in the manufacture of underwear.

ANALYSIS OF CHARACTERISTICS OF PRODUCTION IN FACTORIES MAKING LIGHT-WEIGHT PRODUCTS.

Study of product, as has been pointed out, must be the basis of trade training, for four reasons: First, it determines the method and characteristics of production, deciding (1) whether it is characterized by specialization of processes and subdivision of labor and (2) what processes are done by women. Second, it determines the requisites of the workers. Dresses and waists require technical skill and knowledge of construction necessary to make a waist throughout. Neckwear, corsets, and straw hats all need a very different kind of manipulative skill in handling difficult materials. Aprons, underwear, kimonos, and house dresses require more knowledge of and skill in the use of special machines, together with capacity for speed. Cloaks, suits, skirts, raincoats, and overalls require in varying degrees knowledge of garment construction and physical strength. Third, the type of product determines the opportunities to acquire and supplement trade training, for the better the product, the less willing is the manufacturer to train new workers. Fourth, the product determines wage-earning capacity in relation to the amount of skill required and in relation to the regularity and length of working seasons.

An intimate understanding of the requirements of the product ought to forearm the school against misfits, such as reported by one indignant mother, "No, she made a failure of it. The school placed her in a chiffon waist factory. She would have been more successful on overalls."

Since there seems to be little conception on the part of the public of the wide variation in the necessary qualifications of the workers in the different branches of the factory sewing trades, a suggestive analysis of the characteristics of production discovered in the factories making light-weight product is offered for consideration.

---

[1] United States Census, 1910, Vol. IV, Occupations, pp. 540, 607.

MACHINE OPERATING ON LIGHT-WEIGHT PRODUCTS.

A. Complete products.
- 1. Garments made.
  - a. Dresses.
  - b. Waists.
  - c. Petticoats.
  - d. Skirts.
- 2. Materials used.
  - a. Silk of all kinds.
  - b. Expensive cotton and linen goods.
  - c. Chiffon and nets.
  - d. Woolens and velvets.
- 3. Characteristics of production.
  - a. A complete product as distinguished from one process.
  - b. Expensive materials.
  - c. Simple power machines.
  - d. Little or no subdivision of work.
  - e. Selling qualities lie chiefly in its excellence and conformity to the most recent styles.
- 4. Organization.
  - a. Large amount of handwork. Small investment in special machines. Hemstitching, felling, and cutting machines sometimes used. Frequently all special stitching is sent out to other factories. Cutting of expensive materials frequently done with hand shears and only two or three layers cut at one time.
  - b. Organization of work for practically independent production. General supervision of workers. Little subdivision of labor.
  - c. A sample of each kind of garment completed to serve as a model from which each operator must be able to work.
  - d. Predominance of women workers—few men.
- 5. Requirements of worker.
  - a. Knowledge of dress construction:
    - 1. Knowledge of how to put a dress together by seeing sample.
    - 2. Ability to work with little or no supervision.
    - 3. Interest in complete product.
  - b. Manipulative skill—deftness in handling difficult materials.
  - c. Accuracy and good work.
  - d. Speed in so far as compatible with good work.
    - 1. Experience.
    - 2. Understanding of textiles.
    - 3. Knowledge of tricks of the trade.
  - e. Knowledge of simple power-machine operating.
- 6. System of teaching (inexperienced workers can not be used and are seldom taught in the factory).
  - a. New or difficult manipulations shown by forewoman.
  - b. Waist maker can learn skirts, or vice versa.
  - c. Forewoman gives out work with necessary directions and is sometimes responsible for certain processes.
  - d. Little supervision because of skilled workers.

B. Simple product.
  1. Materials used.
    a. Firm cotton material, used in—
      1. Aprons.
      2. Kimonos and bath robes.
      3. Rompers.
      4. Men's shirts.
      5. Petticoats.
      6. House dresses.
      7. Athletic waists and middy blouses.
    b. Lace, scrim, net, and light-weight cotton used in—
      1. Curtains.
      2. Underwear (with lace trimming).
      3. Neckwear (men's and women's).
      4. Wash waists and dresses.
  2. Characteristics of production.
    a. Highly specialized processes.
    b. Inexpepsive materials.
    c. Special machines.
    d. Made in quantities.
    e. Selling qualities lie chiefly in its cheapness and utility.
  3. Organization.
    a. Primarily machine work—large investment of capital in special machines, such as—
      1. Hemstitching—picot attachment.
      2. Tucking—1 to 6 needle machines.
      3. Button sewing.
      4. Buttonhole.
      5. Pleating.
      6. Felling.
      7. Embroidery cutting.
      8. Union Special for finishing raw edges of seams (overcasting).
      9. Putting on bands and running elastic.
      10. Attachments.
        a. Hemmer.
        b. Ruffler.
        c. Cutter to make picot edge, to cut edges any width from seam.
        d. Apron belt maker.
      11. Two-needle machine sewing bias bands, setting in sleeves.
    b. Detailed plan of organization to secure rapid movement of work and accurate check in all workers—
      1. High specialization of process—subdivision of labor.
      2. Large amount of supervision of workers.
      3. Elaborate system of checking workers to trace mistakes.
    c. Predominance of women.
  4. Requirements of worker.
    a. Accuracy.
      1. Edges together straight.
      2. Straight seams.
      3. Mitering.
    b. Understanding of machines.
    c. Speed, which depends on—
      1. Experience in the work.
      2. Knowledge of short cuts and of where work can be slighted.

B. Simple product—Concluded.
  4. Requirements of worker—Concluded.
    d. Ability to comprehend and follow directions, as finished product is not shown.
    e. Interest in amount produced, since production is monotonous.
  5. System of teaching (unskilled workers can be taught).
    a. By showing specific processes, not product.
    b. Simple machines, and simple processes first.
    c. Special machines and difficult processes if learner is willing to be taught.
    d. Forewoman is teacher and overseer, not a worker. Several in a large shop.

OPPORTUNITIES AND REQUIREMENTS IN DIFFERENT BRANCHES OF THESE TRADES.

A brief presentation of the qualifications demanded of workers and of wage opportunities in the factories producing the varied types of product in the power-sewing machine trades may serve to point the way to adaptation of trade training to the needs of the trade.

DRESSES AND WAISTS.

Dress and waist factories, making a product which ranged in price from $3.75 to $20 each, showed several common characteristics. First, the great variety of "numbers" or "lines" produced necessitates an almost infinite number of styles or models. One waist factory reported that "formerly we made new designs twice a year, but styles change too fast for that now." One factory making a high-grade product had 300 "active numbers," and in April reported that they had designed 70 new ones since January. Another waist factory had about 200 active styles. A dress factory required "the designers to produce a new model every day. The success of the firm depends on up-to-date models."

The great variety in lines produced has an important significance for the workers, for "the girls are shown the style of the waist and after having been shown once, they always know the style by the number afterwards." In other words, the worker must be so familiar with the construction of the dress or waist that she knows by looking at the model how to put together the bundle of heterogeneous pieces delivered to her at the window. "A sample hangs on the wall or is put on the figure which the girls can look at. They are supposed to be able to look at the model and put the waist together." "She has need of a dressmaker's knowledge of the way things go together, as she has to make very complicated garments by looking at the model."

One of the greatest requirements of workers in a high-class dress and waist factory is technical knowledge of the construction of a garment, for in the manufacture of the better-grade product, the tendency seems to be toward general construction, i. e., having one person make practically the complete garment, instead of special-

ization. In five of the seven dress and waist factories studied in Boston and Worcester the operators made the complete waist or skirt, except such finishing processes as sewing on buttons or hooks and eyes. The same tendency was discovered in New York, about 25 per cent of the workers being waist or skirt operators or dressmakers.[1] The five employers making good-grade product were unanimous in requiring from the worker the knowledge and ability demanded by independent construction. This is not the same kind of dress construction required in custom dressmaking, and for this reason, custom dressmakers frequently find it difficult to fit into the factory, for in custom dressmaking the fundamental principle is individual adaptation of the particular dress to a particular figure. In factory dressmaking, the dress is supposed to come exactly correct from the cutter, and the operator must stitch the seams in accordance with exact measurements and without variation, basting or much pinning. The dress needs little fitting and variation or adjustment by the draper, if the cutter and operator have done their work correctly.

Second, skill in manipulation of materials which comes from practice in handling different goods is fundamental. Silks and chiffons are more difficult than cotton and linen goods. Most employers making silk and chiffon waists and dresses maintain "that work on coarse materials doesn't help much." "Work on cotton goods doesn't help for the emphasis has been on speed, not finish." Bias bands, trimmings, lace, and embroideries must be sewed without basting, which requires a knowledge of the relative stretch and pull of the different materials. As a result, few inexperienced workers begin on the machines, but usually pass through preliminary stages such as that of boxer, cleaner, or examiner. These occupations have no relation to the process of power-machine operating, but accustom the young worker to the handling of materials, to shop discipline and application, and give an appreciation of the necessity of accuracy.

The factory dressmaker needs a knowledge of the simple straight-stitching power machines, but may have little need for knowledge of or skill on special machines which are used comparatively little on high-grade product. The primary requisites are, therefore, knowledge of and skill in dress construction, with the supplementary assets of manipulative skill and trade knowledge.[2]

What does the factory dressmaking, as a trade, offer to the worker who has these qualifications? The following pay rolls of two typical factories show something of the relative importance of different classes of workers and of wage opportunities:

---

[1] Bul. No. 146, United States Bureau of Labor Statistics, pp. 26 and 43.

[2] See definitions of these terms in Bul. No. 145, United States Bureau of Labor Statistics, Conciliation, arbitration, and sanitation in the dress and waist industry of New York City—Appendix I, A study of the dress and waist industry for the purpose of industrial education, pp. 174-177.

TABLE 126.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY A, MANUFACTURING WASH DRESSES.

Occupation.	Number earning specified average weekly wage.								
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and over.	Total.
MEN.									
Nonneedleworkers:									
Designer								[1] 2	[1] 2
Cutter	1		1		1	1	1	2	7
Presser	1	1	1		2	4	3	3	15
Total	2	1	2		3	5	4	7	24
Power-machine operators—skirt makers		1						4	5
Total, men	2	2	2		3	5	4	11	29
WOMEN.									
Nonneedleworkers:									
Forewoman								1	1
Cutter						1			1
Matcher	4			1					5
Cleaner	1								1
Gives out work			1						1
Total	5		1	1		1		1	9
Hand sewers:									
Finisher	10					1			11
Trimmer	9	3	2						14
Hook and eye sewer	19	1		1					21
Draper	4	1	2	1	2	2	1		13
Total	42	5	4	2	2	3	1		59
Power-machine operators:									
Sample maker					1		1		2
Waist maker	2	3	8	6	5	5	1		30
Skirt maker	1		6		2	2	3		14
Buttonhole maker [2]	1								1
Hemstitcher [2]		1							1
Total	4	4	14	6	8	7	5		48
Unclassified	1								1
Total, women	52	9	19	9	10	11	6	1	117
Grand total	54	11	21	9	13	16	10	12	146

[1] One earned $45 and one $30.

[2] Work on special machines.

TABLE 127.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY B, MANUFACTURING SILK AND LINEN TAILORED WAISTS.

Occupation.	Number earning specified average weekly wage.								
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and over.	Total.
Nonneedleworkers:									
Forewoman								1	1
Designer and cutter							1		1
Errand girl	3								3
Presser			1			1			2
Total	3		1			1	1	1	7
Needleworkers:									
Hand finisher	6								6
Power-machine operators—									
Waist maker	4	1	1		1	2	4		13
Tucker					1				1
Buttonhole maker	1				1				2
Total	11	1	1		3	2	4		22
Grand total	14	1	2		3	3	5	1	29

There seems to be a rather general opinion that "power-machine operating" is nothing more than operating a power machine and that mastery of the power and some knowledge of the machine will enable a girl to work with equal ease and adaptation on any one of these numerous products. "With a little practice on power machines * * * she could sit down at a power machine and become a pieceworker without delay because she knows how to control her machine," writes one educator.[1] "School training for specific operations is not necessary, for these operations are simple and can be learned in a few days or weeks at most in the factory itself."[2] But this is not true of power sewing-machine operating, as a study of the various branches of the industry and of the experience of the girls shows. A girl who has worked on aprons, on which the chief requisites are straight stitching and speed, might find it impossible to stitch chiffon waists, which require a knowledge of how to hold flimsy materials without stretching or mussing, how to put in sleeves, how to put together shoulder seams, underarm seams, etc., or to stitch corsets, which are usually made of heavy materials but require much shaping in joining the rounded and curving edges.

The fundamental basis on which trade training for the power-machine sewing trades must be developed is that of product. The type of product manufactured in the city in which the trade schools are established, therefore, determines the opportunities for skill and the character of the training which will prove valuable to the prospective worker.

Unfortunately, it is impossible to discover from official statistics the number of firms and workers engaged in the manufacture of these many products, as they are grouped under "men's clothing, factory product," or "women's clothing, factory product." The Massachusetts Bureau of Statistics reported 148 firms and 4,353 employees (1,181 men and 3,172 women) employed in the manufacture of women's clothing in metropolitan Boston in 1913.[3] An investigation by the United States Bureau of Labor Statistics of the cloak, suit, and skirt industry in Boston, covering the period from August, 1912, to July, 1913, estimated the total working force of this branch of the industry in Boston to be about 3,000 workers,[4] employed in 40 shops. If the returns secured by the two bureaus are comparable the cloak, suit, and skirt industry of Boston accounts for more than one-fourth of the firms and employs 69 per cent of the workers in the women's clothing industry in this city. Fairchild's Directory of Men's and

---

[1] Anna C. Hedges: Wage worth of school training, p. 7.

[2] Idem, p. 3.

[3] Massachusetts Bureau of Statistics: Twenty-eighth Annual Report on the Statistics of Manufactures, 1913.

[4] Wages and regularity of employment in the cloak, suit, and skirt industry, Bul. No. 147, United States Bureau of Labor Statistics, p. 70.

Women's Wear in Boston for 1915 reported 475 manufacturers of women's wear, 54 per cent producing light-weight product, such as dresses, waists, petticoats, neckwear, children's clothing, underwear, and aprons, and 46 per cent producing heavy-weight product, such as cloaks, suits, skirts, and raincoats.

EXTENT AND CHARACTER OF THESE TRADES IN BOSTON AND WORCESTER.

The virtual monopoly of the women's clothing trade by New York City largely determines the types of manufacture found in Boston and Worcester. The dress and waist industry, offering the highest opportunities for skill and wage advancement for women and most dependent on changing styles and fashions, naturally centers in New York, the fashion center of the United States. The study of the industry in New York in 1913 disclosed 707 shops employing 36,858 workers, the proportions being a little over four-fifths women and less than one-fifth men.[1] As a result only a comparatively few dress and waist factories are found in Boston. The majority of these are small and with two exceptions their product is limited to medium and cheap grade dresses ranging at wholesale from $3 to $16.50 each. These factories cater in general to a limited market, largely New England, and to a large extent outside Boston.

One large waist factory in Worcester, employing a maximum of 125 workers, manufactures silk and cotton waists at a wholesale price of $9, $16.50, and $18 a dozen. Because of the competition of New York, this firm is developing a western market for its product. One or two smaller dress factories manufacture medium and cheap grade products in Worcester.

Other light-weight products, such as underwear, neckwear, etc., seem to be about the same grade and the majority of factories are comparatively small.

The cloak, suit, and skirt industry is best organized from the standpoint both of labor and of manufacturers and represents the highest grade of product of the women's clothing trade in Boston. The men, however, practically monopolize the skilled occupations in this branch of the trade, because of their greater strength and physical endurance, and their skill in garment construction acquired through the apprenticeship system abroad.

The manufacture of corsets is the predominant industry in Worcester and is primarily a women's industry.[2] The power-machine operating processes are difficult to acquire and many of the machines are complex.

---

[1] Wages and regularity of employment in the dress and waist industry, Bul. No. 146, United States Bureau of Labor Statistics, p. 29.

[2] For description of processes and wages, see First Annual Report of the Minimum Wage Commission of Massachusetts, 1914.

The United States Census reported 4,063 power sewing machine operators (women) in Boston in 1910, one-third (33.4 per cent) of whom were under 21 years of age, and 2,132 in Worcester, 41.5 per cent of whom were under 21 years of age.[1] That the demand for skilled power-machine operators is difficult to fill, is practically a universal complaint in Boston. This is not true in Worcester at present because of the industrial depression in the manufacture of underwear.

ANALYSIS OF CHARACTERISTICS OF PRODUCTION IN FACTORIES MAKING LIGHT-WEIGHT PRODUCTS.

Study of product, as has been pointed out, must be the basis of trade training, for four reasons: First, it determines the method and characteristics of production, deciding (1) whether it is characterized by specialization of processes and subdivision of labor and (2) what processes are done by women. Second, it determines the requisites of the workers. Dresses and waists require technical skill and knowledge of construction necessary to make a waist throughout. Neckwear, corsets, and straw hats all need a very different kind of manipulative skill in handling difficult materials. Aprons, underwear, kimonos, and house dresses require more knowledge of and skill in the use of special machines, together with capacity for speed. Cloaks, suits, skirts, raincoats, and overalls require in varying degrees knowledge of garment construction and physical strength. Third, the type of product determines the opportunities to acquire and supplement trade training, for the better the product, the less willing is the manufacturer to train new workers. Fourth, the product determines wage-earning capacity in relation to the amount of skill required and in relation to the regularity and length of working seasons.

An intimate understanding of the requirements of the product ought to forearm the school against misfits, such as reported by one indignant mother, "No, she made a failure of it. The school placed her in a chiffon waist factory. She would have been more successful on overalls."

Since there seems to be little conception on the part of the public of the wide variation in the necessary qualifications of the workers in the different branches of the factory sewing trades, a suggestive analysis of the characteristics of production discovered in the factories making light-weight product is offered for consideration.

---

[1] United States Census, 1910, Vol. IV, Occupations, pp. 540, 607.

MACHINE OPERATING ON LIGHT-WEIGHT PRODUCTS.

A. Complete products.
  1. Garments made.
    a. Dresses.
    b. Waists.
    c. Petticoats.
    d. Skirts.
  2. Materials used.
    a. Silk of all kinds.
    b. Expensive cotton and linen goods.
    c. Chiffon and nets.
    d. Woolens and velvets.
  3. Characteristics of production.
    a. A complete product as distinguished from one process.
    b. Expensive materials.
    c. Simple power machines.
    d. Little or no subdivision of work.
    e. Selling qualities lie chiefly in its excellence and conformity to the most recent styles.
  4. Organization.
    a. Large amount of handwork. Small investment in special machines. Hemstitching, felling, and cutting machines sometimes used. Frequently all special stitching is sent out to other factories. Cutting of expensive materials frequently done with hand shears and only two or three layers cut at one time.
    b. Organization of work for practically independent production. General supervision of workers. Little subdivision of labor.
    c. A sample of each kind of garment completed to serve as a model from which each operator must be able to work.
    d. Predominance of women workers—few men.
  5. Requirements of worker.
    a. Knowledge of dress construction:
      1. Knowledge of how to put a dress together by seeing sample.
      2. Ability to work with little or no supervision.
      3. Interest in complete product.
    b. Manipulative skill—deftness in handling difficult materials.
    c. Accuracy and good work.
    d. Speed in so far as compatible with good work.
      1. Experience.
      2. Understanding of textiles.
      3. Knowledge of tricks of the trade.
    e. Knowledge of simple power-machine operating.
  6. System of teaching (inexperienced workers can not be used and are seldom taught in the factory).
    a. New or difficult manipulations shown by forewoman.
    b. Waist maker can learn skirts, or vice versa.
    c. Forewoman gives out work with necessary directions and is sometimes responsible for certain processes.
    d. Little supervision because of skilled workers.

B. Simple product.
  1. Materials used.
    a. Firm cotton material, used in—
      1. Aprons.
      2. Kimonos and bath robes.
      3. Rompers.
      4. Men's shirts.
      5. Petticoats.
      6. House dresses.
      7. Athletic waists and middy blouses.
    b. Lace, scrim, net, and light-weight cotton used in—
      1. Curtains.
      2. Underwear (with lace trimming).
      3. Neckwear (men's and women's).
      4. Wash waists and dresses.
  2. Characteristics of production.
    a. Highly specialized processes.
    b. Inexpensive materials.
    c. Special machines.
    d. Made in quantities.
    e. Selling qualities lie chiefly in its cheapness and utility.
  3. Organization.
    a. Primarily machine work—large investment of capital in special machines, such as—
      1. Hemstitching—picot attachment.
      2. Tucking—1 to 6 needle machines.
      3. Button sewing.
      4. Buttonhole.
      5. Pleating.
      6. Felling.
      7. Embroidery cutting.
      8. Union Special for finishing raw edges of seams (overcasting).
      9. Putting on bands and running elastic.
      10. Attachments.
        a. Hemmer.
        b. Ruffler.
        c. Cutter to make picot edge, to cut edges any width from seam.
        d. Apron belt maker.
      11. Two-needle machine sewing bias bands, setting in sleeves.
    b. Detailed plan of organization to secure rapid movement of work and accurate check in all workers—
      1. High specialization of process—subdivision of labor.
      2. Large amount of supervision of workers.
      3. Elaborate system of checking workers to trace mistakes.
    c. Predominance of women.
  4. Requirements of worker.
    a. Accuracy.
      1. Edges together straight.
      2. Straight seams.
      3. Mitering.
    b. Understanding of machines.
    c. Speed, which depends on—
      1. Experience in the work.
      2. Knowledge of short cuts and of where work can be slighted.

B. Simple product—Concluded.
  4. Requirements of worker—Concluded.
    d. Ability to comprehend and follow directions, as finished product is not shown.
    e. Interest in amount produced, since production is monotonous.
  5. System of teaching (unskilled workers can be taught).
    a. By showing specific processes, not product.
    b. Simple machines, and simple processes first.
    c. Special machines and difficult processes if learner is willing to be taught.
    d. Forewoman is teacher and overseer, not a worker. Several in a large shop.

OPPORTUNITIES AND REQUIREMENTS IN DIFFERENT BRANCHES OF THESE TRADES.

A brief presentation of the qualifications demanded of workers and of wage opportunities in the factories producing the varied types of product in the power-sewing machine trades may serve to point the way to adaptation of trade training to the needs of the trade.

DRESSES AND WAISTS.

Dress and waist factories, making a product which ranged in price from $3.75 to $20 each, showed several common characteristics. First, the great variety of "numbers" or "lines" produced necessitates an almost infinite number of styles or models. One waist factory reported that "formerly we made new designs twice a year, but styles change too fast for that now." One factory making a high-grade product had 300 "active numbers," and in April reported that they had designed 70 new ones since January. Another waist factory had about 200 active styles. A dress factory required "the designers to produce a new model every day. The success of the firm depends on up-to-date models."

The great variety in lines produced has an important significance for the workers, for "the girls are shown the style of the waist and after having been shown once, they always know the style by the number afterwards." In other words, the worker must be so familiar with the construction of the dress or waist that she knows by looking at the model how to put together the bundle of heterogeneous pieces delivered to her at the window. "A sample hangs on the wall or is put on the figure which the girls can look at. They are supposed to be able to look at the model and put the waist together." "She has need of a dressmaker's knowledge of the way things go together, as she has to make very complicated garments by looking at the model."

One of the greatest requirements of workers in a high-class dress and waist factory is technical knowledge of the construction of a garment, for in the manufacture of the better-grade product, the tendency seems to be toward general construction, i. e., having one person make practically the complete garment, instead of special-

ization. In five of the seven dress and waist factories studied in Boston and Worcester the operators made the complete waist or skirt, except such finishing processes as sewing on buttons or hooks and eyes. The same tendency was discovered in New York, about 25 per cent of the workers being waist or skirt operators or dressmakers.[1] The five employers making good-grade product were unanimous in requiring from the worker the knowledge and ability demanded by independent construction. This is not the same kind of dress construction required in custom dressmaking, and for this reason, custom dressmakers frequently find it difficult to fit into the factory, for in custom dressmaking the fundamental principle is individual adaptation of the particular dress to a particular figure. In factory dressmaking, the dress is supposed to come exactly correct from the cutter, and the operator must stitch the seams in accordance with exact measurements and without variation, basting or much pinning. The dress needs little fitting and variation or adjustment by the draper, if the cutter and operator have done their work correctly.

Second, skill in manipulation of materials which comes from practice in handling different goods is fundamental. Silks and chiffons are more difficult than cotton and linen goods. Most employers making silk and chiffon waists and dresses maintain "that work on coarse materials doesn't help much." "Work on cotton goods doesn't help for the emphasis has been on speed, not finish." Bias bands, trimmings, lace, and embroideries must be sewed without basting, which requires a knowledge of the relative stretch and pull of the different materials. As a result, few inexperienced workers begin on the machines, but usually pass through preliminary stages such as that of boxer, cleaner, or examiner. These occupations have no relation to the process of power-machine operating, but accustom the young worker to the handling of materials, to shop discipline and application, and give an appreciation of the necessity of accuracy.

The factory dressmaker needs a knowledge of the simple straight-stitching power machines, but may have little need for knowledge of or skill on special machines which are used comparatively little on high-grade product. The primary requisites are, therefore, knowledge of and skill in dress construction, with the supplementary assets of manipulative skill and trade knowledge.[2]

What does the factory dressmaking, as a trade, offer to the worker who has these qualifications? The following pay rolls of two typical factories show something of the relative importance of different classes of workers and of wage opportunities:

---

[1] Bul. No. 146, United States Bureau of Labor Statistics, pp. 26 and 43.

[2] See definitions of these terms in Bul. No. 145, United States Bureau of Labor Statistics, Conciliation, arbitration, and sanitation in the dress and waist industry of New York City—Appendix I, A study of the dress and waist industry for the purpose of industrial education, pp. 174-177.

TABLE 126.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY A, MANUFACTURING WASH DRESSES.

Occupation.	Number earning specified average weekly wage.								
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and over.	Total.
MEN.									
Nonneedleworkers:									
Designer	......	......	......	......	......	......	......	[1] 2	[1] 2
Cutter	1	......	1	......	1	1	1	2	7
Presser	1	1	1	......	2	4	3	3	15
Total	2	1	2	......	3	5	4	7	24
Power-machine operators—skirt makers	......	1	......	......	......	......	......	4	5
Total, men	2	2	2	......	3	5	4	11	29
WOMEN.									
Nonneedleworkers:									
Forewoman	......	......	......	......	......	......	......	1	1
Cutter	......	......	......	......	......	1	......	......	1
Matcher	4	......	......	1	......	......	......	......	5
Cleaner	1	......	......	......	......	......	......	......	1
Gives out work	......	......	1	......	......	......	......	......	1
Total	5	......	1	1	......	1	......	1	9
Hand sewers:									
Finisher	10	......	......	......	......	1	......	......	11
Trimmer	9	3	2	......	......	......	......	......	14
Hook and eye sewer	19	1	......	1	......	......	......	......	21
Draper	4	1	2	1	2	2	1	......	13
Total	42	5	4	2	2	3	1	......	59
Power-machine operators:									
Sample maker	......	......	......	......	1	......	1	......	2
Waist maker	2	3	8	6	5	5	1	......	30
Skirt maker	1	......	6	......	2	2	3	......	14
Buttonhole maker [2]	1	......	......	......	......	......	......	......	1
Hemstitcher [2]	......	1	......	......	......	......	......	......	1
Total	4	4	14	6	8	7	5	......	48
Unclassified	1	......	......	......	......	......	......	......	1
Total, women	52	9	19	9	10	11	6	1	117
Grand total	54	11	21	9	13	16	10	12	146

[1] One earned $45 and one $30.

[2] Work on special machines.

TABLE 127.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY B, MANUFACTURING SILK AND LINEN TAILORED WAISTS.

Occupation.	Number earning specified average weekly wage.								
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and over.	Total.
Nonneedleworkers:									
Forewoman	......	......	......	......	......	......	......	1	1
Designer and cutter	......	......	......	......	......	......	1	......	1
Errand girl	3	......	......	......	......	......	......	......	3
Presser	......	......	1	......	......	1	......	......	2
Total	3	......	1	......	......	1	1	1	7
Needleworkers:									
Hand finisher	6	......	......	......	......	......	......	......	6
Power-machine operators—									
Waist maker	4	1	1	......	1	2	4	......	13
Tucker	......	......	......	......	1	......	......	......	1
Buttonhole maker	1	......	......	......	1	......	......	......	2
Total	11	1	1	......	3	2	4	......	22
Grand total	14	1	2	......	3	3	5	1	29

Factory A, manufacturing linen and gingham dresses selling at wholesale from $3.75 to $10 each, employed 117 women and 29 men during the year. Ninety-one per cent of the women were sewers, 41 per cent being power-machine operators and 50.4 per cent hand sewers. Fifty-six per cent (56.5) of the machine operators, excluding special machine operators, earned $8 or more and 71.2 per cent of the hand sewers earned less than $6. Five men worked on the machines as skirt makers, and the weekly average of four of them for the year was $15 or more—one $31.33, and another $32.27. None of the women skirt makers earned $15, one-half earning $9 or more as compared with one-third of the waist makers in this earnings group. These power-machine operators on waists and skirts make the article complete, 54.5 per cent earning $8 or more. Two sample makers, one averaging $9.38 and one $12.77, make the samples which constitute the model from which the operators work. Two special machine operators run a hemstitching and a buttonhole machine, each averaging less than $7. The manufacturer who makes high-grade silk and chiffon dresses frequently has no special machines, sending out the hemstitching if required, and hooks and eyes, buttons, and buttonholes, are sewed by hand.

Dresses and waists of good quality are draped on the figure by "drapers," who pin the waist and skirt together, arrange the plaits or gathers, pin on the belt or any trimming. They have usually been dressmakers or operators previously. About one-half earned $8 or more. Finishers, trimmers, and hook and eye sewers do the finishing handwork on the dress, and because no particular skill is required, the great majority earn less than $7.

Factory B, a small factory manufacturing silk and linen tailored waists selling at wholesale for $12 to $42 a dozen, employed no men. A woman designer and cutter, who has grown up in the factory, plans, designs, and cuts the waists with hand shears, never cutting more than two or three layers at once.

"There is no real reason why cutting could not be done by women," said a high-grade dress manufacturer, "but designing and cutting require special training. There are no logical steps of advancement in the factory." Moreover, in factories producing a medium-grade product or using a very firm material, the goods are spread on a cutting table "sometimes 300 lays at a time" and are cut by men with a revolving disk run by electricity. The woman designer and cutter in factory B had begun as a sewer, but because the factory was small she had had opportunity to learn cutting and designing. All the girls in this small factory still have access to the cutting and designing room and "can pick it up if they have the capacity for it." "Our designers get their ideas from store windows, fashion books, and styles seen in New York," said one manufacturer. "They aren't original designs in the sense that they originate styles."

There were more than two machine operators to one hand sewer. Thirteen of the 16 power-machine operators were "waist makers" and made the waist throughout, except for any tucking or buttonholes which might be done by machine, and for the hand finishing. More than one-half the power-machine operators averaged for the year $9 or more, and all the hand finishers less than $6.

NECKWEAR.

Neckwear is also characterized by a great variety of "lines" and the girls are having to learn to do new things all the time to secure novel effects. Women designers and cutters are found in neckwear factories because of their originality of taste and style. The forewoman in a small factory in Boston making high-grade product must produce a new design every day.

The construction involved in the making of neckwear is less complex than that of dresses or waists, but the "girls must have some knowledge of how the pieces go together" from looking at a sample collar. Artistic skill and ability, deftness and lightness of touch are essential in the manipulation of the dainty, delicate laces and nets which stretch, pull, and become flimsy with handling. Milliners fit nto this work fairly well (and the seasons dovetail), particularly in making the bows and trimmings and handling the net and lace. The requirements of this trade demand more knowledge of special machines than is necessary in dressmaking. Straight-stitching machines, hemstitching, plaiting, and overlocking or zigzagging machines are used in the making of neckwear. The stitching is on short lengths but on difficult materials.

In factory C, of which the pay roll is shown below, manufacturing collars of net, light-weight and fine embroidered materials and malines, as well as ruffs, bows, and chemisettes, not less than 9 stitches and sometimes 14 stitches to the inch are required, preventing great speed, as the emphasis is on finish. Lace must be stitched on the edge of bias pieces of net, net must be tucked, hemstitched, and hemmed, and wire supports sewed on these delicate materials without stretching, pulling, or soiling them. This necessitates a different distribution of workers from that found in the dress and waist making industry. Table 128 shows the number and kind of workers employed in a typical neckwear factory, and the wages they earn.

A good deal of handwork is necessary for finishing and trimming neckwear, and consequently the hand sewers constitute a more important group here than in the two factories previously discussed, forming 40.7 per cent of the total number of employees and 52.4 per cent of the needle-workers. In wages, however, the power-machine operators show more favorable conditions than prevail among the handworkers. Not one of the latter averaged over $7 a week, while half of the machine operators earned $7 or over, and two-fifths earned $8 or more a week.

TABLE 128.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY C, MANUFACTURING NECKWEAR.

Occupation.	Number earning specified average weekly wage.				
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	Total.
Nonneedleworkers:					
Cutter				2	2
Stock girl				1	1
Gives out work			1		1
Presser		2			2
Total		2	1	3	6
Needleworkers:					
Hand sewers—					
Finisher	2	3			5
Helper	1				1
Bow maker		1			1
Flower maker	2	1			3
General worker		1			1
Power-machine operator	2	3	1	4	10
Total	7	9	1	4	21
Grand total	7	11	2	7	27

CHILDREN'S DRESSES.

In the manufacture of children's dresses, as in factory D whose pay roll is given in Table 129, no hand sewers are found, as the materials used are strong and firm cotton goods, and there is no special emphasis on hand finish. Nor is there any need for drapers, for these dresses are not fitted on the form, as is done in the high grade dress factories where the emphasis is on finish and style. Moreover, the power-machine stitching is much more specialized. There are general operators, joiners (who sew together waists and skirts), trimmers (who stitch on bands of different colors or bias cloth and fancy braids), sample makers, and special buttonhole and button machine operators. Even with this amount of specialization of processes the employer complained, "I can't use girls from the undermuslin trade because they don't know how to put a garment together. My workers must know how to put a dress together and how it should look when it is done."

As the pay roll shows, the range of wages in this factory is much less than in factories making dresses and waists for adults. Only 24 per cent of the total group of workers earned as much as $8 or more a week, and only 31 per cent $7 or over. Among the machine operators not on special machines, only 22.2 per cent earned $8 or over, and 59.2 per cent earned under $6 a week. There was considerable difference in the earnings of the different kinds of workers; not one of the four workers on sleeves earned as much as $7 a week, while only one of the six trimmers earned less than $7.

TABLE 129.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY D, MANUFACTURING CHILDREN'S CLOTHING.

Occupation.	Number earning specified average weekly wage.						
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and over.	Total.
Nonneedleworkers:							
Forelady			1				1
Designer						1	1
Folder	5	1	1				7
Presser	4					1	5
Total	9	1	2			2	14
Needleworkers—machine operators:							
General	22	1	2				25
Skirts	5	3		2			10
Skirt trimmer	2	1		1			4
Sleeves	3	1					4
Joiners				1		1	2
Trimmer		1		3	2		6
Sample maker			1			2	3
Buttonhole[1]				1			1
Button sewer[1]				2			2
Total	32	7	3	10	2	3	57
Grand total	41	8	5	10	2	5	71

[1] Work on special machines.

UNDERWEAR.

The manufacture of underwear is characterized by extreme specialization of processes, extensive use of special machines, such as the zigzag machine for joining lace and edges or overcasting seams; one, two, three, and four needle tucking machines; button-sewing and buttonhole machines; while the use of straight stitching on seams and a long stitch makes possible the development of a good deal of speed. In spite of the specialization of processes, "a girl is given a bundle and is expected to know how the pieces go together," and she does not have the advantage of a sample before her to look at when in doubt. The pay rolls of two typical underwear factories, one in and one outside of Boston, are shown in Tables 130 and 131.

TABLE 130.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY E, MANUFACTURING MUSLIN UNDERWEAR—BOSTON.

Occupation.	Number earning specified average weekly wage.						
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and over.	Total.
MEN.							
Cutter	5	1	2	1	1	12	22
Shipper	5	1				2	8
Total, men	10	2	2	1	1	14	30
WOMEN.							
Nonneedleworkers:							
Designer						[1] 1	[1] 1
Stamper	2	1	1				4
Helper	21	6	1	3	1	4	36
Examiner	19	2	2				23
Boxer, folder, and presser	5		1	1		1	8
Total	47	9	5	4	1	6	72
Needleworkers—machine operators:							
Sample makers		1	2	1	3	2	9
Machine operators	197	31	22	12	1	3	266
Total	197	32	24	13	4	5	275
Total, women	244	41	29	17	5	11	347
Grand total	254	43	31	18	6	25	377

[1] Receives $50 weekly wage.

TABLE 131.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY F, MANUFACTURING MUSLIN UNDERWEAR—OUTSIDE BOSTON.

Occupation.	Number earning specified average weekly wage.						
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and over.	Total.
Nonneedleworkers:							
Examiner	1	3		1			5
Forelady					1	3	4
Shipper						1	1
Presser			2				2
Office						2	2
Ribbons	6	1					7
Total	7	4	2	1	1	6	21
Needleworkers—machine operators:							
Finisher	18	5	5	2			30
Seaming	5	3	2	1			11
Binding	1		1	1			3
Ruffling	1	1					2
Hemstitching	3						3
Tucker	1		2				3
Hamburg			1	1			2
Laceworker			1				1
Buttonholes	2						2
Mending			1				1
Two-needle machine		3					3
Buttons			1				1
Bands					1		1
Gatherer			1				1
Total	31	12	15	5	1		64
Grand total	38	16	17	6	2	6	85

The needleworkers in factory E are either sample makers, two-thirds of whom earn $8 or more, or power-machine operators, who are expected to be able and are required to work on any product needed at a particular time; almost three-fourths of these averaged less than $6. In factory F, however, the power-machine operators have definite processes on which they work, such as finishing,[1] seaming, binding, ruffling, hemstitching, tucking, etc., 14 different distinct processes appearing from the occupations of the workers on the pay roll. Possibly because this specialization permits the development of greater speed, the level of earnings is not quite so low among the machine operators in this factory as in factory E. Nearly one-half (48.4 per cent) earned less than $6 a week, and 67.2 per cent earned less than $7 a week, while 9.4 per cent, as against 6 per cent in factory E, earned $8 or over.

SHIRTS.

Extreme subdivision of labor is found in a factory manufacturing men's shirts. Eighteen processes appear from the pay-roll record, and there are no handworkers. Each worker has one special process. The characteristics of production are straight stitching, long stitches, and speed. Here, machine operating as a process is more important than knowledge of construction for most of the workers because of the extreme specialization of processes, yet the girl who puts in sleeves, puts on cuffs, or joins shoulders needs a certain amount of this technical knowledge, and the yoke stitcher must be accurate. More than one-half earned $8 or more.

TABLE 132.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY H, MANUFACTURING MEN'S SHIRTS.

Occupation.	Number earning specified average weekly wage.						
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and over.	Total.
Machine operators:							
Buttonhole				2	2	3	7
Hemmer			2	2			4
Band stitcher		2		1			3
Fronts				2	1		3
Seamer					2		2
Band maker					2		2
Button sewer					1		1
Cuff and band turner				1			1
Sleeve facer	1	1		1			3
Cuff maker				1			1
Cuff stitcher	1			1			2
Cuff setter	1		1				2
Sleeve setter						1	1
Shoulder joiner		1		1		1	3
Label stitcher			1				1
Yoke stitcher			1				1
Band setter	2		2			1	5
Sleeve facings	2	1					3
Total	7	5	7	12	8	6	45

---

[1] Girls who put the garments together, putting in sleeves, collars, etc.

APRONS AND ROMPERS.

Even in the manufacture of aprons and rompers there is a great variety of styles, Factory I reporting "432 active numbers." This branch of industry has highly specialized processes, six girls working on one apron—(1) a seamer, (2) a finisher, who sews on strings and bias bands and hems the bottom, (3) one to make the strings, (4) one to mark places for buttons and buttonholes, (5) a buttonhole maker, and (6) a button sewer. The manufacture of this product requires no high grade of manipulative skill and demands, perhaps, less knowledge of construction than is needed in any other branch of the factory sewing trades.

The workers have no models to copy, as in the high-grade dress and waist factories, but "the forewomen show them how to put the new numbers together and the work is principally straight stitching." The characteristics of production are much specialized machinery, highly subdivided processes, long straight stitching, long stitches where they do not show, and speed. The requisites of the workers are, primarily: (1) Knowledge of the machines, both straight-stitching and special machines—that is, actual knowledge of the parts of the machine and their production; (2) ability to do straight stitching; (3) speed gained both from physical dexterity and from systematic handling and use of short cuts where feasible. "Work on silk unfits them for this trade," says one employer. "They are too slow." The needleworkers are all power-machine operators, about 70 per cent earning $7 and over.

TABLE 133.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY I, MANUFACTURING APRONS.

Occupation.	Number earning specified weekly rate.								
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and under $20	Total.
MEN.									
Cutters							1	1	2
Shippers							1		1
Total, men							2	1	3
WOMEN.									
Nonneedleworkers:									
Forewomen							2		2
Cuts embroidery					1	1			2
Examiner					1				1
Presser							1		1
Packer							1		1
Machine stitchers		15	25	7	2				49
Total, women		15	25	7	4	1	4		56
Grand total		15	25	7	4	1	6	1	[1]59

---

[1] Not including 4 piece workers.

CURTAINS.

The manufacture of scrim and cheesecloth curtains is also characterized by subdivision of labor and the use of special machines and many special attachments. Manipulation is more important in curtains than in aprons because of the more difficult materials involved. Since the curtains have to hang straight and are in a strong light, all defects are visible. The work involves primarily deftness in handling difficult materials, knowledge of special machines and processes, long straight stitching, and speed. All sewers (except in some factories the mender) are power-machine operators. Hemming tops is the simplest operation; making hems and bands is the next stage of advancement; sewing on edges, insertions, turning corners, and hemstitching are the most skilled operations. Fifty-eight per cent of the hemstitchers and 76.2 per cent of those stitching insertions, edges, and corners earned $7 or more. A little over one-half the latter earned $8 or more. More than one-half of those hemming tops, and hemming and banding earned less than $7.

TABLE 134.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY J, MANUFACTURING CURTAINS.

Occupation.	Number earning specified average weekly wage.							
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and over.	Unclassified.	Total.
Nonneedleworkers:								
Forewomen				1		1		2
Inspectors			3	4	3			10
Lace cutters	3	1	1					5
Boxers and recorders	2	3	1	1				7
Pressers	2	10	8	6	1			27
Total	7	14	13	12	4	1		51
Power-machine stitchers:								
Insertions, edges, corners	5	5	10	14	5	3		42
Hems and bands	4	3	1	5				13
Hemming tops	2	4	2	1		1		10
Hemstitchers	6	2	7	3	1			19
Total	17	14	20	23	6	4		84
Unclassified	8	2	2	1	1	1	2	17
Grand total	32	30	35	36	11	6	2	152

SKIRTS.

The skirt industry, as has been pointed out, is primarily a man's industry, 64.4 per cent of the 281 workers appearing on the pay roll of factory K being men. Much of the same characteristics of production appear as in dress manufacturing, the operator producing a complete skirt, except for the finishing processes, and needing a knowledge of dress construction and tailoring. Very few special sewing machines are used, as emphasis in this particular factory is put on hand finish. The work is fairly evenly divided on the basis of sex, the men doing the stitching and the women the handwork. Only 11 of the 128 power-machine operators were women, and 9 of these earned $10 or more. Eighty-seven per cent of the men operators earned $10 or more, and 27.4 per cent averaged $20 or more for the year. Seventy-three of the 100 women were hand sewers—finishers (who put on snaps, hooks and eyes), alteration workers, basters (who mark the place for plaits and baste them down), and button sewers—and 35.6 per cent of these earned $7 or more.

The requisites for power-machine stitching on skirts are a knowledge of garment construction, physical strength to handle and stitch the heavy materials long straight stitching, and speed. For the hand sewing, only the elementary principles of sewing are required.

TABLE 135.—NUMBER IN EACH OCCUPATION RECEIVING EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY K, MANUFACTURING SKIRTS.

Occupation.	Number earning each specified average weekly wage.									
	Under $6	$6 and under $7	$7 and under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and under $20	$20 and over.	Total.
MEN.										
Nonneedleworkers:										
Foreman	......	......	......	......	......	......	......	......	3	3
Cutter	......	......	......	......	1	......	2	3	14	20
Presser	1	......	......	......	1	3	2	17	6	30
Button maker	4	2	......	......	......	......	......	......	......	6
Stock	4	......	......	......	......	1	......	......	......	5
Total	9	2	......	......	2	4	4	20	23	64
Needleworkers—power-machine operators:										
Sample maker	......	......	......	......	......	1	......	......	7	8
Skirt maker	5	2	2	3	3	9	23	37	25	109
Total	5	2	2	3	3	10	23	37	32	117
Total, men	14	4	2	3	5	14	27	57	55	181
WOMEN.										
Nonneedleworkers—button makers	2	3	2	3	3	3	......	......	......	16
Needleworkers:										
Hand sewers—										
Finisher	20	11	7	6	4	......	2	......	......	50
Alterations	......	......	......	......	......	1	......	......	......	1
Baster	4	1	......	......	......	......	......	......	......	5
Button sewer	7	4	1	5	......	......	......	......	......	17
Power-machine operators—										
Sample maker	......	......	1	......	......	......	......	......	......	1
Skirt maker	......	1	......	......	......	2	5	2	......	10
Total	31	17	9	11	4	3	7	2	......	84
Total, women	33	20	11	14	7	6	7	2	......	100
Grand total	47	24	13	17	12	20	34	59	55	281

STRAW HATS.

The manufacture of straw hats is a highly skilled industry, practically monopolized in Massachusetts by women, though in New York men are coming into the trade. The requisites are primarily, (1) knowledge of construction of straw shapes of assorted kinds, (2) deft and easy manipulation of the difficult and rather perishable straw braids, and (3) a knowledge of a particular straw sewing machine. Model hats are placed before the workers to refer to and to copy, and "shapes" or molds are accessible so that the hat frame may be frequently fitted to get the proper shape and head size. Because of the short season, the wage and season of the 107 straw machine operators working in factory M are given together. Eighty-two (82.2) per cent earned an average wage of $10 or more, and more than four-fifths of these (84.1 per cent) had a working season of from 20 to 35 weeks. Seventy-one per cent had an average wage of $12 or more, and 85.5 per cent of these worked 20 weeks or over. Almost three-fourths (73.8 per cent) of the total number of workers had a working season of from 20 to 36 weeks.

TABLE 136.—NUMBER EMPLOYED FOR EACH SPECIFIED PERIOD WHO RECEIVED EACH SPECIFIED AVERAGE WEEKLY WAGE IN 1914—PAY-ROLL RECORD OF FACTORY M, MANUFACTURING STRAW HATS.

Number of weeks employed.	Number earning specified average weekly wage.									
	Under $8	$8 and under $9	$9 and under $10	$10 and under $12	$12 and under $15	$15 and under $18	$18 and under $20	$20 and under $22	$22 and over.	Total.
Under 4 weeks	6	1	1	......	2	......	......	......	......	10
4 weeks and under 8 weeks	1	......	......	2	1	......	......	......	......	4
8 weeks and under 12 weeks	1	......	1	1	......	......	......	......	......	3
12 weeks and under 16 weeks	......	2	1	......	5	......	......	......	......	8
16 weeks and under 20 weeks	......	......	......	......	1	1	1	......	......	3
20 weeks and under 24 weeks	......	3	1	4	14	8	2	......	1	33
24 weeks and under 28 weeks	......	......	1	4	8	6	3	......	3	25
28 weeks and under 32 weeks	......	......	......	1	2	6	2	3	1	15
32 weeks and under 36 weeks	......	......	......	......	......	1	2	2	1	6
Total	8	6	5	12	33	22	10	5	6	107

This finishes the outline of the characteristics of the different branches of the factory sewing trades, and of the demands they make upon their workers. Because of the variations in the qualifications required of workers in the manufacture of these different products, the individual worker does not shift from one branch of the industry to another as much as might be expected.

Only 5 of the 81 trade-school girls going into the cloth machine-operating trades had worked in three different branches of the trade, and only 23 had worked in more than one. The manufacture of dresses, waists, neckwear, children's clothing, aprons, and curtains has received the great majority of the girls from the trade school.

Nor do the girls who have gained their training in the trade come up through the several branches of the trade, because proficiency in one may train her directly away from the others, as has been mentioned in reports from employers.

METHODS OF LEARNING IN THE TRADES.

"We don't want learners" is the usual statement in a high-grade dress factory. "We can't have the machines producing less than their capacity and the goods are too expensive." In the medium-grade factories, however, "the foreman makes girls sitting near help a beginner whether they want to or not." In another Boston factory "if an inexperienced hand comes in, she is usually started on finishing, which is what everyone can do who has ever sewed. Then she is taught by the forewoman and the girl sitting next to her, first on the simpler processes, straight seams and so on." A Worcester firm manufacturing cotton waists reported that, "When green girls come, at the very start we put them on cleaning, or measuring or gauging buttonholes. After they have been near the machines for a while they usually want to run them. They usually show ability or we do not keep them at all. We start them on a machine without a needle until they learn to control the power. Then we put them on sleeves or places where the work doesn't show much. After a girl can do sleeves well, she is put on body making, then setting in sleeves and collars. We insist on the girls' learning several machines, so if one department gets congested we can move them about. They sometimes object to learning new machines, but as they are so young they can usually be induced to make the change."

Manufacturers producing a cheaper product in which the material is less expensive, more easily handled, and the processes more specialized will more frequently take on inexperienced workers, though usually they insist that the applicant "must be able to do straight stitching." An apron manufacturer says, "Girls are taught to some extent in dull season. The forewoman will show them three times and no more." The usual route by which the young girl gets on the machine is through the hand processes. A large factory manufacturing muslin underwear has evolved a fairly definite scheme of training and procedure in the initiation of young workers under the direction of a capable forewoman. A girl is first taught to control the power, which "can be done in two hours. She then sews on rags until she can sew straight." Her progress from the standpoint of product is as follows: (1) Nightdress, (2) chemise or combination, (3) corset cover, (4) drawers, (5) skirt. From the standpoint of process, she is taught (1) stitching and felling of seams, (2) putting the hem on the bottom or the lace on the bottom (sometimes with a zigzag machine), (3) making facings and bands, (4) trimming the neck and sleeves (that is, putting on the lace or embroidery sometimes with a zigzag and sometimes with an ordinary machine), (5) tucking on the tucking machine, (6) ruffling and putting on the ruffles, (7) making and setting in the yokes. "It takes a girl a year to become experienced in this work."

COST OF TEACHING IN THE FACTORY.

Employers have a hazy idea of the cost of initiating a young learner. An apron manufacturer maintained it cost $20 to $30 to train a new worker in his factory. A curtain manufacturer claims it costs him $35. As shown on the basis of actual production,[1] an inexperienced worker was paid $22.32 more than her work was worth during her first six weeks in the factory, and with the addition of the use of the machine, spoiled materials, and time of the forewoman, the cost doubtless reached, if it did not exceed, the higher amount named by the employer.

An interesting illustration of the cost of teaching in the factory is found in a straw-hat factory which in 1914 took on 40 new workers in an average force of 150 women stitchers. The learners are taken on October 1, about six weeks before the regular season opens. They are paid $4.50 a week for two months, or longer if necessary. Four experienced workers are assigned as teachers at $3 a day, 1 teacher to 10 girls. For two months, they give full time to training the learners to make by hand the straw "tips" and to stitch straw braid and shape it on the form. After eight weeks, some of the girls are ready for semiindependent work on piece rates and two teachers can take care of the group. For eight weeks at least the learners simply sew braid together, producing nothing salable. The braid is ripped up again and again and sewed again for practice. If a girl completes her apprenticeship in eight weeks, the cost of her training is as follows:

$4.50 per week for 8 weeks	$36.00
One girl's share of teacher's salary ($18 per week for 8 weeks for 10 girls)	14.40
Total cost (not including cost of materials used or depreciation of machines)	50.40

Thirty-three of the forty girls "made good," thus increasing the proportional cost for each successful worker. This employer maintains it costs him about $2,000 a season to train his new workers.

Many of the young workers are not capable of doing productive work at the close of their eight weeks' training. The following table shows the weekly record of two sisters, cases A and B, and of a third woman, case C, who were initiated into the factory at the same time.

---

[1] See Table 31, pp. 51, 52.

TABLE 137.—WEEKLY WAGES OF THREE "LEARNERS" IN A STRAW-HAT FACTORY FOR ONE SEASON.

[Figures above the heavy rule indicate earnings received as apprentices, those below, the earnings received after the girl became an independent worker on a piece rate, actually producing hats.]

Week.	Specified wage received each week by—			Week.	Specified wage received each week by—		
	A.	B.	C.		A.	B.	C.
First	$4.50	$4.50	$4.50	Twentieth	$4.50	$17.55	$17.85
Second	4.50	4.50	4.50	Twenty-first	4.50	29.55	23.05
Third	4.50	4.50	4.50	Twenty-second	7.55	26.05	21.75
Fourth	4.50	4.50	4.50	Twenty-third	7.55	23.00	24.70
Fifth	4.50	4.50	4.50	Twenty-fourth	10.95	26.70	22.90
Sixth	4.50	4.50	4.50	Twenty-fifth	9.65	25.55	22.50
Seventh	4.50	4.50	4.50	Twenty-sixth	8.95	29.25	25.75
Eighth	4.50	4.50	3.80	Twenty-seventh	10.15	25.95	24.15
Ninth	4.50	4.50	11.80	Twenty-eighth	13.80	27.10	29.45
Tenth	4.50	4.50	5.35	Twenty-ninth	8.75	27.15	29.45
Eleventh	4.50	4.50	17.35	Thirtieth	6.90	21.45	16.25
Twelfth	4.50	4.50	12.30	Thirty-first	1.45	13.75	18.40
Thirteenth	4.50	4.30	7.90	Thirty-second	....	....	15.60
Fourteenth	4.50	16.90	21.35	Thirty-third	....	....	10.60
Fifteenth	4.50	21.95	16.70	Thirty-fourth	....	....	3.00
Sixteenth	4.50	20.75	15.00				
Seventeenth	4.50	22.90	19.35	Total	180.20	470.65	507.75
Eighteenth	4.50	23.05	13.25				
Nineteenth	4.50	13.75	26.70	Average wage	5.81	15.18	14.93

As an apprentice, the girl simply sewed straw and ripped it up again and again until she could be trusted to use the straw which, because expensive or because stylish that particular season, must be conserved for hats intended for sale. It is interesting to note in the case of B and C, who were put on a producing basis in a shorter period than A, that both fell back the first week on piece rate, then jumped to a wage almost four times as large the second week.

Case A was 21 years and case B, 23 years of age. Case A worked five months as an apprentice, her wage alone thus costing her employer $94.50 instead of the standard amount of $36. Case B worked 12 weeks as an apprentice, her wage during her training thus amounting to $54. Case C, a woman of 25 years, was put on a producing basis after seven weeks' apprenticeship. The record of these workers for the season also illustrates the wide variations in returns as a result of this expenditure of time and money in training. Case A earned a total of $180.20 for the season of 31 weeks. Case B earned $470.65 during the same period. Case C, who was very quick in learning, earned $507.75 for a season of 34 weeks.

AMOUNT OF SHIFTING AMONG FACTORY EMPLOYEES.

The extent to which a factory takes in inexperienced workers largely determines the amount of shifting discovered on the pay roll. In one dress factory the pay roll showed that of 117 women employed during the year, 73 had held their places only from one to five weeks. Fourteen had left at the end of the first week and 18 more at the end of the second week. In a curtain factory the pay roll showed 152 women employed during the year, of whom 65 had worked less than 12 months. These women were, however, not quite so transitory as those of the dress factory, as only 22 of them left under five weeks, and 27 were in the factory 15 weeks or more. In an underwear factory which takes young learners, 53 per cent of a total of 347 women appearing on the pay roll during the year stayed less than 12 weeks, and 42.1 per cent stayed less than 8 weeks. In the year 1910 in this factory 65.8 per cent of a total of 315 stayed less than 12 weeks.

SUMMARY.

A survey of the sewing trades shows the importance and the need of trade training for young workers. The emphasis on training for the custom sewing trades and the neglect of the factory trades, however, seems surprising, since the whole evolution within the industry is in the opposite direction. While the school has failed to take cognizance of the decreasing opportunities for young workers in the custom sewing trades, the experience of its pupils shows that they are bearing the brunt of these industrial changes. The general lack of information as to conditions and opportunities in the factory trades probably explains this lack of adjustment. Acquaintance with the many different trades which constitute the clothing industry is essential to successful trade training, for the product determines whether the demands made on the workers are primarily for technical knowledge of garment construction, manipulative skill, trade knowledge, or speed. Proficiency in one trade may mean inefficiency in another. Since the high-grade factories manufacturing a product requiring technical skill seldom take inexperienced workers, the young girl who learns in industry must begin on unrelated processes or enter factories producing low-grade product, which may train her away from rather than toward the better types of factories. The workers shift very little from one product to the other. Moreover, there is a heavy dropping out of young learners in the industry. The expense involved in training the young worker in the factory and the uncertainty of securing the benefits of this training make the majority of employers unwilling to develop a systematic plan of training. The school's great opportunity at present lies in this field.

CHAPTER VIII.—SUMMARY AND CONCLUSIONS.

The new type of vocational education is judged by the ability of its pupils to meet the demands of the vocation for which it offers training. Popular interest, whether favorable or adverse, desires concrete information on the experience of the pupils trained. The trade school from the beginning has tried to develop a system for keeping in touch with its former pupils, (1) by an annual canvass by letter asking for a statement of position and wage, (2) by the maintenance of a placement bureau, and (3) by personal contact through its social organizations, such as clubs and reunions.

The pressure of more insistent daily problems and the difficulty of keeping in touch with all pupils, however, have made a scientific and complete system of records impossible. Nor have educators fully appreciated the importance of a comprehensive and concrete knowledge of the situation as a whole. "We don't need statistics," "We haven't time for investigations," "We know the girls' needs," are statements frequently heard. The school has drawn up long lists of individual pupils and their wages, but these in themselves have little significance for educators or for the general public. For the real significance of wages is dependent on many factors, nor does a knowledge of wages alone necessarily provide the school with the most vital type of information for intelligent and successful procedure.

Industrial education is so new that it is neither fair nor safe to draw sweeping conclusions as to future possibilities of this type of training. But popular interest and the rapid spread of this form of education seem to call for a clearer understanding of its purpose. Where and under what conditions can it be profitably developed and realize its fullest possibilities? Trade training for girls is generally conceded to offer the most difficult problem connected with industrial education, as well as the one in which least progress has been made toward a solution. Yet the need for a solution is increasingly evident.

The great development in mechanical processes which means increased opportunity for the boy, results in decreasing demand for the fine handiwork and individuality of product in which the woman, heretofore, has found her opportunity.

Educational institutions of any kind have usually kept in touch with their successful pupils, but lost sight of the failures. Present-day democratic and social-minded people are asking, "What proportions succeed and what proportions fail?" More than one-third, 36.3

per cent, of the 2,500 girls going out from the three trade schools in Massachusetts used their training in a wage-earning capacity. More than one-third (38.6 per cent) of the 2,044 girls going out from the Boston Trade School during its 10 years' existence, more than one-fourth (27.4 per cent) of the 343 girls going out from the Worcester Trade School during its three and one-half years' existence, and less than one-fourth (23 per cent) of the 113 girls going out from the Cambridge Trade School during its two years' existence entered their trades.

What proportion should be expected to use their training? Curiously, the vocational schools have collected little data on which to base a comparison. The proportion from the three trade schools using their trades, one-third, is higher than is found among those taking the four years' course of the Girls' Practical Arts High School, or among the pupils of the Industrial Schools for Boys in Worcester and New Bedford. Some advocates of trade schools object to judging their success by their ability to induct their pupils into the trades for which they train; if, however, a school can not do this, is it a trade school? No one would expect that all pupils or even a large proportion of the pupils trained in any vocational school would permanently remain in their first vocation. But unless a reasonable proportion utilize their training, several questions are pertinent. (1) Are the schools drawing the type of pupil which can meet the demands of the trades for which they offer training? (2) Are the trades for which the schools train well chosen? That is, (*a*) Can they utilize the numbers trained in the trade school? (*b*) Do they offer adequate opportunities from the standpoint of skill and advancement to justify the expenditure of time and money involved in training for them?

To appreciate fully the significance of these figures—the survival of one-third—we must know (1) what types come for training, (2) how long they remain, (3) what are the requisites of success, and (4) what are the local trade opportunities. A most serious administrative and educational difficulty is encountered at the outset in the wide range in equipment of the pupils who apply for training. From the standpoint of maturity, 34.9 per cent were under 15 years of age, 28.8 per cent were 15 but under 16, 29.3 per cent were 16 years and under 18, and 7 per cent were 18 years and over at entering trade school. From the standpoint of schooling, 48.2 per cent had not graduated from grammar school, 31.3 per cent were grammar-school graduates, and 20.5 per cent had previously attended a secondary school. The trade school is confronted on the one side, therefore, with a group of immature pupils who present a wide range in capacity for training, 44.6 per cent of whom leave under the age of 16 years, and 70 per cent of whom in Boston and Worcester remain less than 12 months. On the other side comes the demand from the trade for general intelligence, maturity, and experience.

The significance and reality of these trade demands are apparent from a study of their bearing on the girl's utilization of her training. Education is important. Only 23.1 per cent of the girls not graduating from grammar school as compared with 52.6 per cent of the grammar-school graduates, used their trade. Maturity has a still more direct bearing on the girl's opportunity to use her training. Only 7.7 per cent under 15 years of age at the time of leaving school, 34.4 per cent 15 and under 16 years, and 45.3 per cent 16 and under 17 years used their training, while 55.8 per cent 17 and under 18 years and 63.1 per cent 18 and under 19 years of age at leaving the trade school used their trade. At least a minimum of trade training and repetition of processes is fundamental. Of those trained in the sewing courses in the three schools, only 8.4 per cent of those remaining in the trade school less than six months, and 43.4 per cent of those remaining six months and less than 12 entered the trade, but 84.2 per cent of those remaining 12 months and less than 18 used their training. Study of trade conditions shows that these proportions are not merely fortuitous. Of 100 dressmakers who had acquired their experience in the trade, only 24.7 per cent had not graduated from grammar school, 47.4 per cent had graduated from grammar school but gone no further, and 27.8 per cent had attended high school. Only 11.8 per cent of the dressmakers reported by the United States Census of 1910 were under 21 years of age.

The choice of the trades for which training is offered, therefore, is fundamental, and it seems curious, in the light of the census returns of 1910, to find that almost three-fourths of the girls enrolled in the three trade schools in 1915 were registered in the dressmaking course.

Another very important question, and one which, curiously enough, educators have apparently little appreciated, is that of ability to persist in the trade for which training has been acquired. Yet it throws light on two most vital points: (1) It provides an index to opportunity from the standpoint of numbers and requisites of the workers, and (2) it should provide the educator with a standard for measurement of the strength or weakness of the training. In Boston, by the end of the first year, a little more than four-fifths of the 744 who were found by investigation to have used their trades were still in their trade; by the end of the second year, three-fifths and by the end of the third year a little over two-fifths of this selected group still persisted. Nor is this sifting due to marriage, as is popularly supposed, for two-thirds in their seventh year were still engaged in wage-earning occupations. Trade conditions predominate as the most important cause of leaving, for the sewing trades present two serious problems, (1) the inherent hardships involved in the long process of acquiring requisite skill and in the short seasons, and (2) the decreasing opportunity for young inexperienced workers. Nevertheless, in comparison with the young unskilled workers whose records may be read from the educational certificates in the school offices, these young trade-school girls show remarkable permanence in trade, position, and establishment. Nor should a failure to persist in the trade necessarily be taken to indicate retrogression. On the contrary it may mean betterment for the girl with higher educational advancement. Nevertheless, should not the school establish for its own guidance and as a test of its success, a certain fairly definite proportion which should be expected to succeed and persist in the trades for which it offers training?

This survey covering the study of the three trade schools for girls in Massachusetts, and of the working experience of all their pupils who used their training one week or more and of all others who attended the trade school nine months or more, suggests certain concrete conclusions.

I. For the general public:

1. The trade school does not cater to "the masses," but, nevertheless, reaches a new type of girl very similar in the three cities, whose educational needs hitherto had not been specifically met. The trade-school girl comes from a family less comfortably circumstanced than the high-school girl, but more comfortable than the girl who applies for a working certificate at the age of 14 years. The large majority come directly from the grammar school; they correspond, from the standpoint of nativity, to the total 15 to 20 year old school population, and a fair degree of economic comfort is indicated in their contribution to the home, number of other wage earners, and comparatively few dependents in the home. A reasonable degree of economic comfort might be expected, since

(*a*) The trade school is a secondary school in which the majority must remain one year or more to succeed in their trade.

(*b*) The trade school trains for a few specific trades which demand (1) a comparatively high degree of education; (2) a comparatively long course of training with a rather high minimum of skill and practice in the processes; (3) increasing maturity, and (4) a particular type of manual skill and technical knowledge.

(*c*) The custom sewing trades have marked seasons and do not offer steady or continuous employment.

2. Trade schools for girls, as yet conceived, train primarily for the custom sewing trades and can not fulfill their purpose where there are no sewing trades, or where very limited opportunities are open to the young, partially equipped worker. The recent development of courses in "trade cooking" or "catering" is most interesting, but the opportunity to utilize this training in any other capacity than

ordinary domestic service is very limited because of the extreme immaturity of the girls trained. When they become older they encounter the competition of girls from "practical arts high schools," or from the colleges of domestic arts, with longer and more complete training. If established for or giving home training, these schools should be frankly so designated and generally recognized as such by the parents who send their daughters for training. Growth out of local needs and adjustment to local demands is the fundamental basis for a trade school's success.

3. The custom sewing trades are undergoing a tremendous industrial reorganization resulting in continually decreasing opportunities for the young inexperienced worker. They must be recognized more and more as (*a*) a vocation for girls who can afford to spend a longer time in acquiring financial independence; (*b*) as wholly inadequate in most cities, in the demands for numbers alone, to constitute the primary basis for a system of trade training, and (*c*) as demanding a definite type of worker with some general education, maturity, skill, and experience.

4. The so-called "trade-school girl" therefore represents a fairly high degree of selection, since, first, she was able to attend a secondary school; second, she survived the training in the trade school in a ratio of 1 to 3; and, third, she has been able to persist in a trade which has short working seasons and requires special trade qualifications and a long stage of preparation.

II. For the trade educator:

1. Trade training must develop in accordance with the trend of industrial evolution. Since the whole industrial trend is toward increasing development of machine processes, an extended system of trade training for hand processes will not reverse the tendency.

2. The trade school must grow out of the needs of the community.

3. The trade school for girls gives a real advantage to its pupils when established as a result of local demands.

(*a*) It provides a place (1) where the girl can secure specific training for wage earning during the years from 14 to 16, during which years the skilled industries are practically closed to her, and (2) where she can be tested out under favorable circumstances and sympathetic teachers.

(*b*) It levels up the inadequate background of the girl with a lower educational standard through correlation of its allied courses, and equips her to compete with the girl who has had better educational opportunities.

(*c*) It lifts the girl over the unskilled, unrelated processes by providing her with the fundamental principles and some trade skill, enabling her to begin at a higher initial wage on the processes leading directly to advancement and skill. The initial advantage is its real contribution. When once established in the trade, advancement depends on individual capacity to profit by the opportunities which arise.

(*d*) It provides, through its placement bureau, a valuable connecting link between school and industry, and gives the girl the protection of an organized institution in securing work. This phase of vocational training offers much greater opportunities than have yet been appreciated or developed. If systematically organized, the department for placement should enable the school (1) to keep in close touch with industry and its rapid changes in processes, and with its demands from the standpoint of numbers and qualifications of workers; (2) to learn through the experience of its pupils in industry, and (3) to develop in accordance with changing demand.

(*e*) It provides a place to which the former pupil may return in dull season or unemployment for supplementary or advanced training. This phase of trade training, too, is just in its infancy, but, if systematically developed, it will make some of the most valuable contributions in vocational training.

4. The type of girl which succeeds in gaining access to the trade seems to be the grammar-school graduate, with a minimum age of 16 years, a trade-school course of at least a year, and with sufficient economic support to tide over the first three years necessary to become established in the trade.

5. When once established in the trade, maturity, experience, and capacity to assume responsibility and initiative determine the girl's advancement. At beginning work, increased maturity shows increased wage returns. Less than three-fifths (58.9 per cent) of the Boston Trade School girls beginning work at 14 years and under 16, earned $6 or more at the end of the first year. Almost two-thirds (64.1 per cent) of those beginning at 16 years and under 18 and more than two-thirds (70.7 per cent) of those beginning at 18 years and over earned $6 or more at the end of the first year. A similar correlation between maturity and wage is discovered for the trade-trained girls. By the end of the third year, in neither group has the girl beginning work at 18 years maintained her advantage, but in both groups, the girl beginning at 16 years maintains an advantage over the girl beginning at 14.

Thus the age of 16 to 18 years, which because of child-labor legislation is automatically becoming the minimum age, is apparently the most propitious age for entering these trades. Changing conditions in the custom trades, however, raise the question if this will be true during the next 10 years. The business of the trade educators is to know the facts, no matter how fast they may change.

While "common sense" is a very insistent demand from employers, just how close is the relation between education and advancement is not so clear as the relation between age and advancement perhaps, because of the comparatively small proportion, one-fourth, who have had more than a grammar-school education. The girl with a high-school education finds more profitable employment in the business pursuits. On the limited basis of one-fourth, the high-school girl who has learned in the trade maintains a decided advantage over the grammar-school trade-trained girl. The difference in opportunity is less obvious in the trade-school group. This may be due to the ability of the school to supplement the inadequate preparation of its girls who have a low educational equipment. At the end of the first year's experience, the trade-school girl who has previously attended high school seems to have no advantage, but by the end of the third year, an advantage becomes apparent. Since a certain type of manual skill and technical knowledge is the fundamental requisite for success, variation in educational background seems to have little significance at first. When the necessary skill has been acquired, however, advancement depends on ability to think, to plan, and to originate. If academic education develops this ability, it will provide the girl with very important qualifications.

6. A surprising similarity in wage and advancement is discovered for the trade-school girl and for the girl who has learned in the trade which should give the trade educator an impetus for a closer study of the demands of these trades. The trade-school girl starts with a decided initial advantage. Her year's training in the trade school enables her to enter the trade as a producer, rather than as a learner, and she can thus begin at a higher initial wage than the untrained girl. She does not, however, maintain a correspondingly higher wage throughout her working career. Like the trade-trained girl, she reaches an average wage of $8 by the third year, and approximately $9 by the end of the fourth year. The short seasons in the sewing trades, however, seriously lower the annual income. While the girls who remain in their trade maintain an apparently higher wage scale, the longer working year of those who leave for other occupation doubtless results in more satisfactory financial returns.

III. Development and expansion of trade training for girls can be realized only with a wider selection of trades. The most obvious opportunity is found in the factory sewing trades. Not until there has been a pedagogical analysis of the trades, such as has been made in the custom sewing trades, can success in this field be realized. A fundamental difference confronts the young trade-school worker on entering these two divisions of the clothing trades. In the custom trade, she enters as a young helper who works under the close supervision and with the aid of a skilled worker. In the factory trades, and especially in the manufacture of the high-grade product, she must be equipped to enter as an independent worker. She must have a minimum age of 16 years and sufficient skill, trade knowledge, and technical training for independent production with a minimum degree of speed and accuracy. This industry is made up of many subtrades, each making widely different demands and offering a great variety of opportunities for a satisfactory wage and advancement.

But trade training for women must find a wider foundation than the sewing trades to justify its establishment in a great many cities. For in many localities these trades are practically nonexistent, and particularly in their opportunity for employment of young, inexperienced workers. The real problem in trade training for women to-day is to discover the educational possibilities in a wider variety of trades.

IV. Industrial education for girls has a real opportunity from both an educational and an industrial standpoint. Modern industrial competition makes adequate training in the factory increasingly difficult and unsatisfactory. Conditions within the industry change so fast, however, that it is difficult for an outside organization to keep pace with them. Since successful vocational education necessitates closest study of the needs and conditions of the vocation, time and opportunity must be allowed teachers and placement agents to visit and study the girl and the industry. Every means which simplifies and smooths the transition from school to industry should be developed, and this can be effected only through closest connection and mutual understanding between school and employers. Trade schools, as has been discovered, can also perform an important service in supplementing the girl's general education. Their real problem is to so expand the content of their training, that the girl may know, while receiving the secondary schooling, that she is at the same time preparing herself directly for wage earning.

APPENDIX A.—COURSES AND ADMINISTRATION OF THE TRADE SCHOOLS FOR GIRLS IN MASSACHUSETTS.

COURSES IN THE TRADE SCHOOLS.

Courses in trade schools were originally designed with a double intent—trade training and training for the home. "The training not only contributes to the making of efficient tradeswomen, but it also contributes to efficient home service."[1] The importance of training for home making is recognized still, but the trade schools have found it increasingly difficult to make this teaching anything but incidental, because of the youth of the pupils, the short time they can spend at the trade schools, and the exacting demands of the industries for which they train their pupils.

The principal trade taught in each school is dressmaking, which is divided into preliminary and advanced courses. The object of the preliminary courses is to develop skill in handling materials and facility in the use of the different stitches. Although most of the trade-school pupils have had some sewing in the grades, it has not been systematic or extended enough to prepare pupils to do real dressmaking. Trade schools assume that the pupils are unacquainted with all sewing processes, and teach the proper way of work from the start. An interesting system of correlation is being developed in Somerville, where the director of the vocational school for girls has charge of the sewing in all the schools. She is thus able to plan the sewing courses from the fifth grade in the grammar school through the vocational school or the high school in logical sequence. The teachers in this preliminary sewing in the trade school are, as a rule, academically trained, because they are able to interest young and immature pupils better than trade-trained teachers,[2] who are apt to be impatient with beginners.

Two methods of teaching are at present in use. In the Boston Trade School the pupil practices a stitch until she can do it well, when she makes it on a sampler. This becomes a notebook of her progress. When she can do the elementary stitches, she begins work on the salable product. In Worcester, where a salable product is insisted on from the start, the pupil begins with the simple hem on a dishcloth and completes a number of articles in a given order, each article more complicated than the preceding and involving old processes as well as a few new ones. As soon as the pupil is able to handle materials deftly and use stitches accurately and intelligently she takes up more advanced sewing—first infants', next children's, and last women's clothing. At the start the teacher exercises very close supervision, but gradually she demands greater independence on the part of the pupils. The object of the advanced work is to teach the girls to apply their knowledge of stitches and the handling of material to more difficult problems, with little direction from anyone. For this reason trade-trained teachers familiar with shop methods are given charge of the advanced work. They are able to teach short-cut methods in sewing, "the tricks of the trade," which produce the effect desired with the minimum expenditure of time. In the advanced sewing the value of speed is emphasized, and the girls are taught by means of time cards to see how much their time is really worth. The course in dressmaking is incomplete, since cutting and fitting are not systematically taught, first, because there will be no demand on the pupils for this kind of knowledge for some time after they leave school, and, second, because the girls are, for the most part, too immature to be trusted with the responsibility of cutting expensive materials, even if they could be taught the principles involved. The purpose of the training in dressmaking is to fit the girls for dressmakers' assistants.

---

[1] Worcester, Report of Trustees of Independent Industrial Schools for the year ending Nov. 30, 1911, p. 622. See also Fourth Annual Report, Boston Trade School for girls, December, 1908, p. 19; Fifth Annual Report, Boston Trade School for Girls, December, 1909, p. 12; Report of Boston School Committee, 1909, Document 15, p. 11.

[2] Academically trained teachers have received instruction in vocational colleges and have had a limited trade experience. Trade teachers have gained their knowledge from experience in the trade.

The object of the course in millinery is to train girls as milliners' helpers. In most of the trade schools the tendency is to curtail the numbers who take the millinery course, because of the seasonal character of the trade. In the preliminary course the stitches used in millinery are taught on cotton materials. The girls are taught the several kinds of frame making and wiring.

They are next taught to cover hats with silk, velvet, and straw, and are given some instruction in bow making. No attempt is made to teach trimming of hats. An effort has been made in one of the schools to teach the making of fancy articles, like neckwear, as a dull-season occupation.

Power-machine operating on cloth holds trade possibilities greater than dressmaking or millinery for the majority of workers, but its demands are less understood than are those of the custom sewing trades. The work has not, as a whole, been so carefully analyzed, nor have the possibilities for success open to a well-equipped worker been emphasized. In Boston there has been some agitation for a factory school, but with no tangible results. The great difference lies in the requirements of the worker. The young dressmaker or milliner begins as a helper under the direction of an experienced worker. The young power-machine operator is expected to be an independent worker. Thus, the young trade-school girl entering a dressmaking or millinery shop finds herself in conditions more like those in the school than does the girl entering a factory.

The school aims to train pupils to become intelligent workers who have established automatically correct habits of work. It teaches the girls to use several makes of ordinary power machines and special machines, to handle materials and put them together without basting. It also gives such training as it can in the assembling of complex garments. In Worcester, the girls do two-needle joining on corsets, and make children's dresses and women's house dresses. In the trade itself, short-cut methods seem to be part of the secret of success, and the school teaches economy of motion as far as it can. To gain speed, the girls are required to keep time cards, and if a girl can not make a garment in the standardized time, she must try again. When an order comes for a large number of garments of one pattern, the girls are allowed to compete with one another for speed and accuracy. Employers think that the time allowed by the school for the course is too long for the advancement attained. The pupils, to succeed, need a certain degree of maturity and a sturdy physique, the lack of which accounts perhaps for the failure of many to remain in their trade.

Power-machine operating on straw hats, which is offered in the Boston Trade School, makes the same demands on the worker for speed and ability to work with little supervision. The wage opportunities in straw-hat making in Boston are good, but the work is extremely seasonal. The object of the course in straw stitching is to equip pupils to handle all kinds of straw and make all kinds of "blocks." They are taught to do the "tips" at first, then crowns and brims of simple blocks and finally the more complicated processes. The straw stitcher can usually do power-machine operating on cloth, but it is not a part of the course.

Trade cooking or catering, very recently introduced in trade schools, aims to teach pupils to be intelligent assistants in tea and lunch rooms. In Cambridge, the girls do "accomodating," which is catering for small dinners. They obtain orders from customers for cake and cookies and execute these orders in the school kitchen. The Boston Trade School serves luncheons in several factories and schools, giving the girls the practice they need. In Worcester, the girls in trade cooking serve luncheons at the Boys' Trade School. The girls, as a rule, work under very close supervision. They are taught a system of accounting, and are required to show a profit on their work. Little effort is made to teach the reason for food combinations, but correct principles are taught by practice. The popular prejudice against domestic work makes the outcome of these ventures into trade cooking rather dubious. The trade-school girls are too immature to compete successfully with women trained in catering in vocational colleges, and domestic work seems the only alternative.

Trade design, taught only in the Boston Trade School, has for its aim the teaching of girls to fill positions as designers in factories and shops. The girls have been too young to use the training directly. The successful designers found in Boston shops and factories are trade workers who know the demands of the industry because of having worked up through the ranks. At present, the trade in Boston makes use of only a few original designers, and these have had superior art training, as well as trade experience.

The supplementary courses in academic branches, art, cookery, and physical training follow in their methods ordinary school principles. The academic and art teachers obtain their problems from trade work. The course in cookery is supposed to teach the girls what combinations of food will produce the greatest efficiency in a trade worker. The physical training course is designed to foster group activities and to teach girls the principles of hygienic living.

The analysis of trades to discover fundamental processes and the proper sequence for teaching, the search for new trades to be taught, the development of supplementary courses—all these have meant pioneer work in education, and work which has been subjected to direct and immediate tests. Trade-school courses are still variable in all particulars; and a course eminently successful in one city may prove a complete failure in another.

COURSES OF DEPARTMENTS IN THE WORCESTER TRADE SCHOOL.[1]

Four trades are taught at the Worcester Girls' Trade School, dressmaking, millinery, power-machine operating, and business cooking. In addition to the trade training each girl has lessons in business English and arithmetic, civics, industrial history, applied art, and physical education. All girls except those in cooking have home-cooking lessons and the cooking pupils have home-sewing lessons.

Eighty per cent of the time spent in school is given to physical work and the remainder is divided into periods for the allied subjects. About 35 hours a week are taken up in school work.

A fundamental method in all trade-school teaching is to lead the pupil gradually from one process to another, giving practice in the new process just previous to applying it in the construction of something useful. Anticipatory work too far in advance is apt to fail in functioning.

The following courses show how this is worked out; each article made is based on a process already mastered or one just learned on practice pieces.

---

[1] This section on the Courses of departments in the Worcester Trade School was prepared by Miss Helen R. Hildreth, principal, Worcester Girls' Trade School, Worcester, Mass.

DRESSMAKING.

The following statement shows in tabular form the processes taught in the dressmaking department:

DRESSMAKING COURSE IN WORCESTER TRADE SCHOOL FOR GIRLS.

Problem.	Process.	New process.	Remarks.
1. Pincushion, velvet.	....	Basting; backstitching; overhanding; use of gauge.	
2. Crash towels....	Overhanding......	Napery hem..................	Second one for speed.
3. Work cover, lawn.	Napery hem......	Outline stitch.................	Softer material.
4. Sewing apron, lawn.	Basting; overhanding.	Gathering; plain hemming; band by hand; sewing on lace.	Placing gathers is a difficult problem.
5. Kitchen apron, gingham.	Basting; hemming on machine.	Plain seam; locked corners; machine stitching; pocket; band by machine.	First machine work.
6. Cooking apron, percale.	Basting; machine stitching.	Flat seam; French seam; bias facing; buttonhole; sewing on button; fitted hem.	Idea of true and garment bias facing and bias side of gore.
7. Child's petticoat, muslin.	Flat seam; buttonholes; gathering ruffle; straight hem.	Tucking with gauge; hemming placket; ruffle on bottom; bias band to head ruffle.	Allowance for tucks and creasing them.
8. Girl's petticoat, muslin.	Gathering ruffle; shaped hem; plain seam.	Overcasting; bound placket; ruffle set under tuck; machine tucker; bias and straight in same seam; bias facing to finish top of skirt; adjustment of tape in top of skirt.	First use of skirt gores.
9. Bungalow apron, percale.	French seam; pockets; button and buttonholes, etc.	Vertical tucks; flat facing on outside of apron.	Kimono sleeve.
10. Middy blouse, twill.	Pocket; flat seam; French seam.	Facing front; making collar; sleeve with cuff; lapped seam in setting in sleeve; eyelets.	

A fair idea of construction is given by this course and the stitches learned are repeated many times in undergarments and children's clothing until their use becomes automatic. Some of the simple fancy stitches used as decoration are also learned. With this the elementary sewing is completed, and a few weeks are devoted to work on children's dresses, which approaches dressmaking in many respects.

The preparatory dressmaking course involves the making of shirt waists and simple skirts, a model waist lining, and a skirt showing several different ways of finishing the waist line and bottom. After making nurses' uniforms and other house dresses the girls are put in the advanced dressmaking class, usually at the second year, and then all the training is given on orders for such dresses as are taken in any good dressmaking shop. In this way the use of a great variety of material is made possible; for, with the previous instruction, the girl now needs to be given an endless number of opportunities to apply what she has acquired since entering school.

No attempt is made to teach cutting and fitting in the courses in this trade, for the majority of the girls are under 16 years of age and are too young to understand it from a trade point of view. From intelligent observation, most of the girls are able to make their own clothes and those of their family.

POWER-MACHINE OPERATING.

As all processes in operating are carried out with no basting, the lower piece of the goods lies loosely against the feed and will be carried along faster than the upper piece unless this is prevented. This "pull" of the feed must be controlled where ends should come even. It may, however, be used as an aid where fullness is desired. It is the central factor in operating, and the pull of the cloth necessitated by it must be learned to insure success as a tradeswoman.

Elementary operating consists of: (1) Knowledge and care of the machine; (2) control of the power; (3) simple processes and seams; (4) necessary muscle control and coordination.

The pupil learns in the first few days, more or less, according to individual ability, how to clean and oil the machine, how to thread, names of parts, how to wind bobbin while running machine and doing other work, proper tension or appearance of stitch, sound of machine (because if it varies something is wrong), position and use of knee lifter, use of chaser, position of foot while running the machine and while at rest, and the proper position in the chair to avoid backache and round shoulders.

POWER-MACHINE OPERATING COURSE IN WORCESTER TRADE SCHOOL FOR GIRLS.

Problem.	Process.	New process.	Remarks.
1. Straight lines	a. Pupil follows lines in plain gingham, using colored thread.		
	b. Ruled lines on white cotton cloth, colored thread.		Pupil learns divisions of inch in use of measure, both tape and ruler. Alternate periods of ruling and machine stitching.
	c. Stitching to measure by use of tape on unbleached muslin; bias stitching.		
2. Machine apron	Stitching to measure unbleached muslin, colored thread, following warp and woof threads.	Stitching to design, bias or diagonal; hem; corner; control of feed's pull; square patch pocket.	Seam put in by teacher to give demonstration of quick, good work. Feed control needs much practice at first, but soon becomes mechanical.
3. Towels of crash	Hem; corner finish		Stiff, heavy material gives practice in feed control and edge stitching, an essential factor.
4. Dust cloths of cheesecloth.	Long hem; corners		Soft, thin material in above processes.
5. Dishcloths of cheesecloth.	Straight lines; even edges	Several thicknesses quilting; even edges in folding.	Control of easily slipping material. Bias stitching preparatory to garment bias seams.
6. Holders of calico or gingham with flannelette lining.	Several thicknesses	Plain seams	
7. Kitchen apron, gingham.	Plain seams; hem	Gathered by hand; band; locked corners; straight patch pocket.	Gathering by hand to develop dexterity of many muscles at one time.

POWER-MACHINE OPERATING COURSE IN WORCESTER TRADE SCHOOL FOR GIRLS—Concluded.

Problem.	Process.	New process.	Remarks.
8. Cooking apron, calico.	Patch pocket; curved...	French seam; set-on gores; curved hem; bias facing neck and arm size; mitered corner; button sewed on.	Reasons for mitering shape of garment, gores, etc.
9. Waitress apron, percale.	French seam; much-curved hem; straight hem; band set over plain material; bias on bib; square corners; buttons.	Bib set on band with flat seam; square mitred corner; fullness fed in.	Gores begin work of skirt making. Use of feed to give fullness by allowing to pull; much practice of edge stitching, many curves.
10. Child's drawers (Hill cotton, Fruit of the Loom, Cameo, 2,000; Hamburg or nainsook for ruffle).	French seam; flat seam; band.	Bound placket; tucks; ruffle set under tuck; right and left parts.	
11. Misses' drawers.	Bound placket; ruffle under tuck; French seam; flat seam; band at back; buttons.	Yoke in front; tucks above ruffle.	Yoke setting and reasons for it. Tucks are made by measure to aid in developing accuracy and eye training.
12. Ladies' drawers.	French seam............	Ruffle under braid or tape; strapped seam; faced center darts; facing with tape as finish at top.	
13. Petticoat........	French seams; bound placket; tucks; faced band; darts.	Putting 5 gores together; deeper hem.	Reason for 5 gores shown on form and direction of threads in each. Garment bias. Handling of deeper hem.
14. Corset cover with peplum, lace trim.	French seam; hem top of cover; hem around shaped arm size and peplum; tape run in; buttons; hand gathers.	Box plait; setting lace; setting peplum.	Use of cover gives reason for shape and material. Reasons for curves, shape of person and lines of cover.
15. Corset cover without peplum.	As above................	Hem bottom; tape around waist.	Different finish of waist line gives variety in treatment and process.
16. Nightdress......	French seam on set-in gores; lace setting.	Sleeve setting; binding over curved top of gown.	Set-in sleeve gives relation of curves to each other and reasons. Low neck and short sleeve are followed by high neck and long sleeve with cuff as more difficult process.

Having completed these garments the pupils have control of the machine and have mastered the fundamental processes; they must then apply them in many different styles of garments, using a great variety of materials and trimmings.

Those who show ability are given training on special machines and taught to do special kinds of construction. As in dressmaking, the idea is to give innumerable opportunities to apply the knowledge acquired in the elementary class.

The ability to make use of the facts one has learned is the most vital thing in any line of education.

MILLINERY.

Millinery does not lend itself to the same outlining that garment making does and so the course is worked out by topics rather than in a sequence and the pupil attacks the simpler parts first, but according to the season in which she begins.

The following topics are required to be mastered during the course:

Millinery Course in Worcester Trade School for Girls.

- Bandeaux:
  - Straight.
  - Curved.
  - Circular.
- Stitches:
  - Running.
  - Backstitch.
  - Plain hemming.
  - Rolled hemming.
  - Buttonhole.
  - Blindstitch.
  - Cross-stitch.
  - Catstitch.
  - Fold stitch.
  - Tie stitch.
- Frames:
  - Wire, from measurements or models.
  - Buckram.
- Covering:
  - Straw, plain and fancy.
  - Velvet, silk, etc.
  - Net or lace, plain or shirred.
- Facing, plain and shirred:
  - Velvet.
  - Silk.
  - Chiffon.
- Bindings:
  - Snapped.
  - Blindstitched.
  - Stretched.
  - Puffed.
  - Corded.
  - Flange.
- Trimming:
  - (*a*) Making—
    - Folds, French and plain.
    - Wiring ribbon.
    - Ornaments.
    - Mourning veils.
  - (*b*) Applying to hats and bonnets.
- Renovating:
  - Hats.
  - Velvet.
  - Ribbon.
  - Crêpe.
  - Curling feathers.
- Designing.
- Color combinations.
- Salesmanship.

Having worked out these subjects in dolls' hats, as well as full-sized hats, the last spring season in school, the girls are placed in local shops, where they get the experience in the trade which the school can not give to the extent desired. Millinery is becoming so much a wholesale proposition that custom trade is very fickle, and a school can not secure sufficient patronage to carry all the order work the pupils should have.

TRADE COOKING.

The trade cooking class has prepared, served, and "accounted" the luncheons at the Boy's Trade School. This training has been in the form of counter service and that in the table service has been gained by the service of dinners once or twice a month in the school library room, to clubs, and school dinner parties. As the class develops, the work of serving in families and doing catering of various kinds will be taken up.

ACADEMIC, ART, AND COOKING (GENERAL) COURSES, AND PHYSICAL EDUCATION.

The academic, art, and cooking (general) courses, and physical education are for the general development of the pupils and are sometimes of a cultural nature, but usually are closely allied to the trade which is the major subject, and so differ in content for each group of girls. The main topics are the same, but the details within them vary to suit the peculiarities of the business which is involved in the trade.

ACADEMIC COURSES.

First year:
1. Arithmetic, workroom methods, necessary drills, etc., given only part of the year except with low-grade pupils.
2. English, oral and written, as related to trades.
3. Spelling—trade terms and phrases and words in common use.
4. Writing.
5. Citizenship.
6. Industrial history and geography for advanced girls.

Second year:
1. Advanced trade arithmetic.
    - a. Shop organization.
    - b. Estimates for materials.
    - c. Economy in cutting—relation of width of material to cost, etc.
    - d. Estimating costs of single garments and garments duplicated in quantity.
2. English.
    - a. Written and oral directions for making garments or parts of garments.
    - b. Business letters, orders, application for positions, etc.
3. Textiles.
    - a. Study of quality, weaves, textures, adulterations, etc., through simple practical tests.
    - b. Short history of the development of textiles in common use with their relation to women's work.
4. Industrial history and geography as related to women's work.
5. Apportionment of income—expenditure.

   All academic courses are arranged to fit the needs of various groups, both as to trade and as to the ability of the pupils.

ART COURSES.

First year:
1. Color scales.
2. Form, spacing, proportion, and line by arrangement of tucks, trimmings, etc.
3. Designs for trimmings—embroidery, etc.

Second year (elective):
1. Applied design—advanced work.
2. Costume designing.
3. Designing of hats.

GENERAL COOKERY COURSES.

First year.

1st period, 9.00 to 10.30 a. m.
1. Care of supplies from the market. Preparation of vegetables, meats, desserts and soups that require more than one hour for preparation and cooking. Cooking of these dishes begins during the first period of the morning and, if incomplete, is finished by next class.
2. Shaping and setting rolls to rise.

2d period, 10.30 a. m. to 12 m.
1. Preparation of meats, desserts, quick soups, quick breads (such as biscuit, muffins, etc.), requiring less than an hour for cooking.
2. Packing luncheon to be sent to the boys' school.
3. Baking of rolls and breads set previously.
4. Arrangement of dining room.
5. Serving luncheon to pupils and teachers.

First year—Concluded.
  3d period, 1.00 to 2.30 p. m.
    1. Washing dishes, care of sink, refrigerator, towels, etc.
    2. Preparation of stock soups.
    3. Care of left-over food.
    4. Setting bread and rolls for breakfast next day.
    5. Desserts, such as lemon jelly, blancmange, etc.
    6. Cooking of foods that require slow cooking, such as ham, which can continue cooking without special attention.

Second year (elective).
    1. Planning menus to given costs.
    2. Buying, cooking, serving of meals from six to eight people.
    3. Canning, preserving, pickling.
    4. Elementary food chemistry.

Second-year classes meet in the afternoon and give more time to theory and independent work than first-year pupils.

PHYSICAL EDUCATION.

1. Light gymnastics.
2. Dancing.
3. Personal hygiene—care of eyes, teeth, the throat and ears, etc.
4. Corrective exercises.

PROGRAM.

Each girl's program in the day classes includes:

FIRST YEAR.

I. Trade work in one trade—22 to 25 hours per week.
II. Cookery—2 lessons of 1½ hours each per week.
III. Class instruction—3 to 4½ hours per week.
    1. Trade arithmetic (not given all year except to girls backward in arithmetic).
    2. English—oral and written.
        a. Business letters.
        b. Compositions based on trade work.
    3. Spelling—trade terms, phrases and words in common use.
    4. Writing.
    5. Citizenship—social ethics.

The above subjects are not necessarily presented parallel to each other. One subject such as arithmetic is presented for one term of 14 weeks or two terms, as necessary, and another substituted as advisable.

IV. Art.
    1. Color scales.
    2. Line, such as arrangement of tucks, rows of insertion, etc.
    3. Spacing and proportion by arrangement of trimmings, etc.
    4. Designs for garments, trimmings, hats, etc.
V. Physical education—2 lessons of 45 minutes each per week.
    1. Short drills in marching, wand drills, etc., for cooperation.
    2. Games such as tag, pass ball, volley ball, etc.
    3. Folk dancing.
    3. Hygiene.

SECOND YEAR.

I. Trade work—22 to 25 hours per week.
II. Advanced cooking (elective)—2 lessons of 1½ hours each per week.

III. Class instructions—3 to 4½ hours per week.
  1. Advanced trade arithmetic given for one term of 14 weeks.
    a. Shop organization.
    b. Estimates of material for garments.
    c. Economy of material.
    d. Estimates for prices on single garments and large orders such as underwear, etc.
  2. English.
    a. Accurate descriptions of work, etc.
    b. Directions for making garments or parts of garments.
  3. Textiles.
    a. Study of weaves, textures, adulterations, etc., through practical tests.
    b. Short history of common textiles—cotton, linen, wool, and silk.
  4. Industrial history and geography as related to women's work.
  5. Citizenship—practical civics.
  6. Apportionment of income—expenditure.
IV. Art (elective).
  1. Applied design—designs for dress trimmings, hat trimmings, buckles, bands, etc.
  2. Costume designing.
  3. Designing of hats.
V. Physical education.
  1. Continuation of first year's work.

ADMINISTRATION OF GIRLS' TRADE SCHOOLS.

Since all of the girls' trade schools in Massachusetts must be approved by the State board of education as to organization and courses of study in order to receive State aid, they resemble one another in general plan of administration.[1] The city furnishes the school plant, and the State pays annually half the net cost of maintenance.[2] Two systems of local administration of trade schools are in operation, unit control in Boston and Cambridge and dual control in Worcester. In Boston and Cambridge, trade schools are a part of the regular public-school system and are administered by the school committee. In Worcester, the boys' and girls' trade schools are under the control of the board of trustees of the independent industrial schools, and are entirely independent of the school committee. This board of trustees is composed of nine persons, chosen by the city council from the city at large. At present, seven of the nine members are employers and the other two are employees. The question of the type of control best adapted to the administration of industrial schools is still unsettled.[3] The advocates of unit control believe that division of authority in the school system tends to decrease its effectiveness and to obscure the essentially educational features of trade training. Those who favor dual control claim that trade schools under the control of the ordinary school committee tend to make trade courses cultural rather than strictly vocational, and to lose the connection with industries which is essential to their success. The Boston and Worcester trade schools have advisory committees chosen from employers and other persons interested in trade schools, which assist the schools in relating their work to the needs of the community.

---

[1] Massachusetts Acts of 1911, ch. 471, secs. 8 and 9.

[2] Net maintenance sum is the total sum expended for maintenance, less the amount of tuition claims and receipts from the work of pupils and sale of products.

[3] See Manual Training and Vocational Education, Vol. XVI, No. 7, March, 1915, pp. 426–430.

Girls' trade schools are, in one aspect, business organizations which manufacture and sell. The cost of the plant is not excessive. The furniture and equipment of the Worcester Trade School for Girls was valued at $5,475 November 30, 1914; in addition to this, the school has "material and made-up stock" to the value of $2,000.[1]

The maintenance cost of trade schools is heavy for several reasons: (1) Salaries are high, because the school hours are long and the equipment of trade teachers enables them to command good wages as forewomen. The school has to offer them as much as they can earn in the trade. (2) The number of teachers is relatively large, to insure small classes and the requisite individual teaching. (3) The cost of supplies is great. The per capita cost of instruction is ascertained by dividing the total cost of maintenance by the average membership. The term is the regulation 40 weeks' school year in Boston and 42 weeks in Worcester. By the year, girls' trade schools cost far more for maintenance than any other type of public education. However, the long school day means almost one-third more hours of instruction than are offered at the Practical Arts High School of Boston. Considered on this basis, the cost of girls' trade schools is almost identical with the cost of the Practical Arts High School. Under private management, the expenditure for maintenance of the Boston Trade School ranged from $109.50 to $150 for each girl,[2] while Table 138 shows that, in the years for which data are given, for the period under public management the per capita cost ranged from $101.85 to $119.47, indicating that the cost of trade schools tends to diminish as they become better established. The per capita cost is based on the total expenditure for maintenance. As a matter of fact, the real cost is much smaller because of the revenue derived from the sale of product. The ratio of value of product to cost of maintenance varies from year to year, from about one-fifth to one-fourth.

---

[1] Worcester Auditor's Annual Report for the financial year ending Nov. 30, 1914, p. 236.

[2] See first four annual reports of the Boston Trade School for Girls.

TABLE 138.—PER CAPITA COST OF BOSTON AND WORCESTER TRADE SCHOOLS FOR GIRLS AND THE PRACTICAL ARTS HIGH SCHOOL OF BOSTON.

School.	Cost per year for each pupil.[1]				
	1909–10	1910–11	1911–12	1912–13	1913–14
Worcester Trade School [2]			$194.64	$201.97	$154.84
Boston Trade School [3]	$101.85	$119.47	114.45	(4)	(4)
Practical Arts Trade School [3]	85.66	78.46	74.60	74.58	81.95

[1] Forty weeks in Boston, 42 weeks in Worcester.

[2] Data furnished by the Worcester Trade School for Girls.

[3] Data obtained from the document containing the report of the business agent in the report of the Boston school committee for specified years.

[4] The accounts of the trade school for girls, regular and summer term, and the girls' evening trade school were consolidated Apr. 1, 1912, and no data on the per capita cost of the day school have since been available.

The income from the sale of product at the Worcester Trade School shows an interesting variation. The dressmaking department produces the largest revenue, and is the largest department in the school. The receipts from cooking, that is, "supplementary" cooking, a course taken by all pupils, come next. The revenue is derived from the lunches served to pupils and teachers. Power-machine operating shows a decided increase during the two years, 1912–13 and 1913–14.

TABLE 139.—REVENUE FROM SALE OF PRODUCTS OF EACH DEPARTMENT OF THE WORCESTER TRADE SCHOOL.

Year.	Revenue from product sold.			
	Dressmaking.	Millinery.	Power-machine operating.	Cooking.
1911–12	$582.28	$290.89	$300.53	$1,183.54
1912–13	1,661.90	276.68	569.86	2,426.34
1913–14	3,199.93	278.41	753.30	2,213.19

The several departments of the trade schools execute orders, but the school office controls the financial transactions of the school. The different departments set the selling price on stock work or orders. The primary basis for this is the current market price. The article is sold at this set price, if possible, but it sometimes has to be disposed of for a smaller amount. The school office assumes all the responsibility of obtaining orders and collecting debts.

The making of a salable product involves a great deal of accounting and demands business ability on the part of the school director. It has proved to be the only means of giving the pupils the necessary trade practice, but can never be sufficient in amount to render the school even approximately self-supporting.

TABLE 140.—ANNUAL REVENUE FROM SALE OF PRODUCT AND COST OF MAINTENANCE OF BOSTON AND WORCESTER GIRLS' TRADE SCHOOLS.

Year.	Cost of maintenance.[1]	Value of product sold.	Per cent revenue is of cost.	Year.	Cost of maintenance.[1]	Value of product sold.	Per cent revenue is of cost.
BOSTON TRADE SCHOOL.[2]				WORCESTER TRADE SCHOOL.			
1911 [3]	$24,611.58	$7,262.26	29.5	1912 [4]	[7] $16,018.73	[8] $2,357.24	14.7
1912 [4]	[5] 35,535.25	9,655.57	27.2	1913 [4]	[7] 24,483.27	[8] 4,934.78	20.2
1913 [4]	[5] 42,611.03	[6] 10,633.07	25.0	1914 [4]	[7] 28,866.06	[8] 6,444.82	22.3
1914 [4]	[5] 49,999.88	11,551.82	23.1				

---

[1] Exclusive of new buildings, rents, repairs, administration, supervision.

[2] The data for Boston were obtained from the document containing the report of the business agent in the reports of the Boston school committee for the specified years.

[3] Ten months' school session.

[4] Twelve months' school session.

[5] Includes cost of evening trade schools.

[6] Includes sale of product of evening school.

[7] Data obtained from the report of the Worcester auditor for specified year.

[8] Data furnished by the Worcester Trade School for Girls.

APPENDIX B.—EVENING INDUSTRIAL SCHOOLS FOR GIRLS.

Evening industrial schools for girls differ from girls' trade schools in personnel and in methods of teaching, also in intent. Girls' trade schools are, in the main, preparatory, although the Boston Trade School also offers continuation courses to its own pupils when they are out of work, giving somewhat advanced courses to accredited pupils who have had trade experience. The Boston Evening Trade School for Girls is wholly planned to meet the needs of trade workers for continuation training which shall supplement their experience. The practical arts training in the evening schools in Boston and Worcester consists of home-making rather than trade courses. The problem of selection of courses and the proper sequence of processes to be taught is somewhat the same in both day trade schools and evening industrial schools. The evening trade schools offer a field for valuable experiment in trade continuation work for mature pupils. The value of the study of such types of evening industrial schools as are already in operation lies in the information obtained as to the kind of supplementary education needed by working women 17 years of age and older and the methods of teaching these older pupils which have been most successful.

The Massachusetts laws provide for two types of State-aided evening vocational schools for women. One, operating under the law of 1911,[1] offers "trade extension" courses to women employed during the day in occupations for which they receive training at night. The second and predominant type, operating under the law of 1912,[2] offers "practical arts" courses to "all women over 17 years of age who are employed in any capacity during the day."

The act of 1911 was, doubtless, aimed at the solution of the problem of the boys' rather than of the girls' continuation or supplementary trade training. The short time devoted to acquiring the training in the evening classes made it impossible fully to train a worker. To avoid crowding the labor market with partially trained workers, attendance was limited to those employed in the trade, "in order that instruction in the principles and the practice of the arts may go on together."[3] The school was expected to supply the principles, while the day occupation provided the practice.

In 1912 an "Act to provide for the establishment and maintenance of evening classes in the practical arts for women" was passed to legalize and provide for State aid to the many evening industrial schools which did not conform to the law of 1911.

---

[1] Massachusetts Acts of 1911, ch. 471, sec. 1, art. 6.

[2] Massachusetts Acts of 1912, ch. 106.

[3] Massachusetts Acts of 1911, ch. 471, sec. 3.

Not until 1913–14 was a girls' evening industrial school organized to operate in accordance with the terms of the law of 1911. In that year the Boston Evening Trade School for Girls was reorganized on a "trade extension" basis for women employed during the day in occupations for which training was offered in the evening; it is still, in 1915, the only evening school for girls in the State operating under this law. As shown in the following table, the change in purpose and requirements resulted in a decrease of 50.2 per cent in the enrollment in 1913–14, since all who desired the practical arts course must go to other schools.

TABLE 141.—TOTAL REGISTRATION IN THE BOSTON EVENING TRADE SCHOOL FROM 1912 TO 1914, AND PER CENT OF INCREASE OR DECREASE IN EACH YEAR AS COMPARED WITH PRECEDING YEAR.

School year.	Number of pupils registered.	Per cent of increase (+) or decrease (−) compared with preceding year.
1911-12	[1] 191	....
1912-13	[2] 331	+73.3
1913-14	[3] 165	[4] −50.2

[1] Report of Boston School Committee, 1912, Document 6, p. 39.
[2] Report of Boston School Committee, 1913, Document 9, p. 39.
[3] Report of Boston School Committee, 1914, Document 6, p. 39.
[4] Decrease due to change in requirements for admission, that all pupils be working in allied trades during the day.

According to the law, an "evening class in an industrial, agricultural, or household arts school shall mean a class giving such training as can be taken by persons already employed during the working-day, and which, in order to be called vocational, must in its instruction deal with the subject matter of the day employment and be so carried on as to relate to the day employment."[1] The interpretation of this clause, however, is elastic. The announcement of courses of the Boston Evening Trade School in 1914-15 offers to power-machine operators, dressmakers, or milliners, machine operating on ordinary machines, special machines and straw-hat machines; to dressmakers, costume sketching, designing, and the making of garments; to dressmakers and milliners different processes of millinery; to needleworkers, garment construction and embroidery; to housekeepers, plain and fancy cooking.[2]

Even more liberal is the actual working out of the law. In the power-machine operating room of the school a saleswoman in a millinery establishment struggled with the elementary processes of straw power-machine operating. Shoe stitchers and cloth machine operators made straw hats in the evening school. The day dressmaker who went from house to house learned and practiced power-machine operating. While this training was undoubtedly valuable to these women, they did not have the opportunity to practice during the day the principles acquired in the evening, and because of the short session and short hours they did not have adequate time to acquire a working knowledge of a new trade. Since the school is in session only three evenings a week from October to April and each session is only two hours long, a pupil by attending every session could receive only 144 hours of instruction, the equivalent of 16 working-days.

---

[1] Massachusetts Acts of 1911, ch. 471, sec. I, art. 6.
[2] Boston Trade School, Evening Trade School Announcement of Courses, 1914-15.

Of necessity, the group system of teaching must be employed, and yet the differences in equipment, age, and occupation of the pupils make a great deal of individual instruction necessary, since the enrollment is too small to group successfully those needing similar teaching. The Worcester Trade School has to solve the problem for the practical arts courses, but this is not so difficult as for the trade-extension course, where every worker needs instruction in a specific process, and where no two may need exactly the same thing.

In the Boston Evening Trade School, the course chosen by the pupil is pursued during the whole winter. It is very elastic, however, since the women may receive instruction in any specific trade process which they need in their day work whenever this need arises, without regard to the regular sequence of processes in the school course.

The report of the ages of the workers coming to the evening trade school for supplementary training shows a very small proportion of young workers. This is indicated in the following table:

TABLE 142.—NUMBER AND PER CENT OF PUPILS IN SPECIFIED AGE GROUPS IN THE EVENING INDUSTRIAL SCHOOLS FOR GIRLS IN BOSTON, WORCESTER, AND CAMBRIDGE, 1913-14.[1]

Age group.[2]	Number.					Per cent.				
	Boston.		Worcester.	Cambridge.	Total.	Boston.		Worcester.	Cambridge.	Total.
	Evening trade school.	Homemaking school.				Evening trade school.	Homemaking school.			
17 to 18 years	18	160	98	13	289	10.5	12.9	11.9	2.7	10.6
18 to 21 years	12	206	183	66	467	6.9	16.5	22.2	13.6	17.1
21 to 25 years	18	110	210	108	446	10.5	8.8	25.5	22.3	16.4
Over 25 years	124	770	333	297	1,524	72.1	61.8	40.4	61.4	55.9
Total	[3]172	[3]1,246	824	484	2,726	100.0	100.0	100.0	100.0	100.0

---

[1] Seventy-eighth Annual Report, Massachusetts Board of Education, 1913-14.

[2] Age groups are as given in report.

[3] "Total enrollment will not equal total different numbers since some are enrolled in more than one course." Seventy-eighth Annual Report, Massachusetts Board of Education, p. 262, note.

Almost three-fourths (72.1 per cent) of the pupils enrolled in 1913–14 were over 25 years of age, and 82.6 per cent were 21 years and over. Thus, instead of drawing a proportionately larger group of young workers, as might be expected, only 17.4 per cent in the evening trade school were under 21, while in all Boston manufacturing industries, 27.6 per cent and in the sewing trades 19.3 per cent were in this young group. The trade school is drawing an abnormally large proportion of older women, for only 72.4 per cent of the women in all manufacturing and mechanical pursuits and 80.7 per cent in the sewing trades in Boston were 21 years and over.[1] A wide variation is also found in the several courses in the Boston Evening Trade School. As shown in Table 143, in cloth power-machine operating 87.1 per cent of the pupils were 21 years and over and 80 per cent over 25, showing the largest proportion to be older women, a condition contrary to that in the trade, for the census of 1910 showed that, of the four trades taught in the trade school, this trade had the largest proportion (30.6 per cent) of workers under 21 years of age.[2] Over 83 per cent (83.3) of those enrolled in dressmaking and 76.2 per cent in millinery were 21 years of age or more, corresponding more nearly to proportions in the trade itself, where 87.5 per cent in dressmaking [3] and 77.6 per cent in millinery [4] were 21 years and over.

In the Boston Evening Trade School for Girls both the materials and the finished product are the property of the school. During the last few lessons of the course the pupils are allowed, in some cases, to make garments of their own materials, which are then their own property. They are allowed to buy the garments they have made during the first part of the course at the cost of materials. This system of making up product which shall belong to the school, and which also prevails in the day trade school, has the advantage of securing uniformity of product and standardization of course, although the differing needs and abilities of the pupils really result in an output which is varied in character. The disadvantage of the system is that the women lack the incentive to good work and regular attendance which exists when they are making something for themselves.

The following table shows the relation of the age of pupils to the courses taken in the evening industrial and trade schools of Boston, Worcester, and Cambridge in 1913–14:

---

[1] United States Census, 1910, Vol. IV, Occupations, p. 540. "Sewing-machine operators" and "semiskilled operatives in suit, coat, cloak, and overall factories" are combined here with dressmakers, milliners, and tailoresses.

[2] United States Census, 1910, Vol. IV, Occupations, p. 540. Sewers and sewing-machine operators, and semiskilled operatives in suit, coat, cloak, and overall factories are combined.

[3] Idem. Dressmakers, seamstresses and tailoresses.

[4] Idem. Milliners and millinery dealers.

TABLE 143.—NUMBER AND PER CENT OF PUPILS TAKING SPECIFIED COURSES IN THE EVENING INDUSTRIAL AND TRADE SCHOOLS IN BOSTON, WORCESTER, AND CAMBRIDGE, 1913-14,[1] BY AGE GROUPS.

NUMBER.

Course.	Boston Evening Trade School for Girls.				Worcester Girls' Independent Evening Trade School.				Boston evening practical arts courses.				Cambridge evening practical arts courses.				Total.
	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	
Cooking	6	....	12	18	....	....	....	....	10	3	42	55	....	15	9	24	97
Dressmaking	8	8	32	48	251	196	287	734	253	61	343	657	56	58	179	293	1,732
Embroidery	....	....	....	....	....	....	....	....	28	22	92	142	9	16	43	68	210
Millinery	5	4	12	21	30	14	46	90	75	24	293	392	14	19	66	99	602
Power-machine operating	11	6	68	85	....	....	....	....	....	....	....	....	....	....	....	....	85
Total	30	18	124	[3] 172	281	210	333	[3] 824	366	110	770	[3] 1,246	79	108	297	[3] 484	2,726

PER CENT.

Course.	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	Total.
Cooking	33.4	....	66.6	100.0	....	....	....	....	18.2	5.4	76.4	100.0	....	62.5	37.5	100.0	....
Dressmaking	16.7	16.7	66.6	100.0	34.2	26.7	39.1	100.0	38.5	9.3	52.2	100.0	19.1	19.8	61.1	100.0	....
Embroidery	....	....	....	....	....	....	....	....	19.7	15.5	64.8	100.0	13.3	23.5	63.2	100.0	....
Millinery	23.8	19.1	57.1	100.0	33.2	15.5	51.3	100.0	19.1	6.1	74.8	100.0	14.1	19.2	66.7	100.0	....
Power-machine operating	12.9	7.1	80.0	100.0	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	17.4	10.5	72.1	100.0	34.1	25.5	40.4	100.0	29.4	8.8	61.8	100.0	16.3	22.3	61.4	100.0	....

[1] Seventy-eighth Annual Report, Massachusetts Board of Education, pp. 262, 264, 268.

[2] Age groups are as given in report.

[3] "Total enrollment in evening schools will not add to equal total different numbers, since some are enrolled in more than one course." Idem, p. 262.

The second type of evening schools, providing instruction in household and other practical arts, is open to women 17 years of age who are employed in any capacity during the day. To this group belong the evening industrial schools in Cambridge, Worcester, and Boston. Almost three-fourths of the pupils (71.6 per cent) in these schools were 21 years of age or more. In 1913–14, 70.6 per cent of the women in these classes in Boston, 65.9 per cent in Worcester, and 83.7 in Cambridge were 21 years of age and over. An older group is to be expected in this particular type of school as the women come to make their own clothes. Two types of schools offering "practical arts" courses have developed; evening classes in ordinary public schools, with home standards of work and a long course lasting through the season, and the Worcester plan, with a systematically arranged course of short units and the product approximating the trade standard in finish.

The evening industrial schools in Worcester attract a younger group than those of Cambridge and Boston. In Worcester in 1913–14, less than two-fifths (39.1 per cent) of the pupils enrolled in dressmaking were over 25 years of age while in the Boston Evening Trade School two-thirds (66.6 per cent), in the Boston evening practical arts courses one-half (52.2 per cent), and in the Cambridge practical arts courses about two-thirds (61.1 per cent), were over 25 years of age. In the millinery about the same proportions in the Boston Evening Trade School (57.1 per cent) and in the Worcester evening school (51.3 per cent) were over 25 years of age. In the Boston practical arts courses, 74.8 per cent and in the Cambridge practical arts courses 66.7 per cent of those taking millinery were over 25 years. The Worcester evening school showed the largest percentage of pupils from 17 to 21 years of age, one-third (34.1 per cent) being less than 21 years old, while in the Boston Evening Trade School 17.4 per cent, in the Cambridge practical arts courses 16.3 per cent, and in the Boston practical arts courses 29.4 per cent were from 17 to 21 years of age. The tendency in Worcester, however, seems to be toward an increase in the age of pupils. In 1913–14, 40.4 per cent and in 1914–15, one-half (51.1 per cent) of the pupils were 25 years of age and more.

TABLE 144.—NUMBER AND PER CENT OF GIRLS IN SPECIFIED AGE GROUPS ENROLLED IN THE WORCESTER GIRLS' INDEPENDENT EVENING TRADE SCHOOL IN 1913-14 AND IN 1914-15.

Age group.[1]	Number.		Per cent.	
	1913-14	1914-15	1913-14	1914-15
17-18 years of age	98	37	11.9	5.3
18-21 years of age	183	136	22.2	19.3
21-25 years of age	210	171	25.5	24.3
Over 25 years of age	333	360	40.4	51.1
Total	824	704	100.0	100.0

[1] These age groups are given in the form used in the report of the Massachusetts Board of Education.

The surprisingly large proportion (72.3 per cent) of women more than 21 years of age in these industrial evening classes in Boston, Worcester, and Cambridge is quite unlike that existing in other types of evening schools. In February, 1914, 5,501 girls, excluding the non-English-speaking pupils, were registered in all the Boston evening schools.[1] Of these, 36.2 per cent were 21 years of age and over. A study of working girls in the New York evening schools made in 1910-11 showed 23.4 per cent 21 years of age and over.[2] In the evening classes of the Manhattan Trade School in 1913, 38.3 per cent of the pupils were 21 years or over.[3]

The adaptation of a course to the varying needs of so mature a group presents a serious problem. The very fact that so few young girls enroll in the evening industrial classes should be suggestive as it seems to show that any sort of trade continuation work designed to reach young people must be offered in working hours, with an arrangement by which the girl can attend without loss of pay, such as has been in operation in Boston for children of 14 to 16 years of age since September, 1914. Girls under 21 years of age evidently will not give up their evenings to supplementary trade training either because they have not yet appreciated the benefit of it or because they are too tired physically, or because they are unwilling to spend their evenings in trade atmosphere. Although it seems probable that young women more than older ones need instruction in their trades, it is the older women in Massachusetts who attend trade-extension courses with trade standards as well as the courses in practical arts.

It is difficult to find any relation between the occupations of women attending evening industrial schools and the courses they choose at the school. Almost all varieties of occupation were represented in the Worcester Girls' Independent Evening Trade School in 1914–15. This is shown in the table which follows:

---

[1] Report of the Boston School Committee, 1914, Document 6, pp. 45, 46.

[2] Mary Van Kleeck: Working girls in evening schools, p. 29.

[3] Idem, p. 133.

TABLE 145.—NUMBER AND PER CENT IN EACH OCCUPATION OF GIRLS ENROLLED IN SPECIFIED COURSES IN WORCESTER GIRLS' INDEPENDENT EVENING TRADE SCHOOL, 1914-15.

Occupation.	Number of girls enrolled in courses in preliminary dressmaking.						
	Plain sewing.		Plain waist and skirt.		Plain sewing and waist or skirt.	Total.	
	One course.	Two courses.	One course.	Two courses.		Number.	Per cent.
Earning.							
Manufactures:							
Custom clothing			1			1	0.4
Needle trades	6	6	4	5	12	33	12.6
Other manufactures	5	17	4	5	24	55	20.9
Total	11	23	9	10	36	89	33.9
Transportation				1	1	2	.8
Trade	2	2	2		2	8	3.0
Clerical occupations	12	9	6	6	17	50	19.0
Professional service	1		1	1	1	4	1.5
Domestic service	10	10	1	2	1	24	9.1
Total	36	44	19	20	58	177	67.3
Not earning.							
At home	17	12	18	10	28	85	32.3
At school					1	1	.4
Total	17	12	18	10	29	86	32.7
Grand total	53	56	37	30	87	263	100.0

Occupation.	Number of girls enrolled in courses in intermediate dressmaking.					
	Without plain sewing.	In addition to preliminary course.	Followed by advanced course.	Power-machine operating.	Total.	
					Number.	Per cent.
Earning.						
Manufactures:						
Needle trades	36	7		18	61	21.4
Other manufactures	25	1		6	32	11.2
Total	61	8		24	93	32.6
Transportation	1				1	.4
Trade	3	1			4	1.4
Clerical occupations	35	6	1		42	14.7
Professional service	4		1		5	1.8
Domestic service	8	4			12	4.2
Total	112	19	2	24	157	55.1
Not earning.						
At home	116	4	2	4	126	44.2
At school	2				2	.7
Total	118	4	2	4	128	44.9
Grand total	230	23	4	28	285	100.0

TABLE 145.—NUMBER AND PER CENT IN EACH OCCUPATION OF GIRLS ENROLLED IN SPECIFIED COURSES IN WORCESTER GIRLS' INDEPENDENT EVENING TRADE SCHOOL, 1914-15—Concluded.

Occupation.	Number of girls enrolled in—									Grand total.	
	Courses in advanced dressmaking.				Courses in millinery.						
	Without plain sewing.	In addition to preliminary course.	Total.		One course.	Two courses.	Combined with dressmaking.	Total.		Number.	Per cent.
			Number.	Per cent.				Number.	Per cent.		
Earning.											
Manufactures:											
Custom clothing	3	....	3	6.7	....	2	....	2	1.8	6	0.9
Needle trades	8	1	9	20.0	1	13	....	14	12.6	117	16.6
Other manufactures	2	3	5	11.1	3	6	....	9	8.1	101	14.3
Total	13	4	17	37.8	4	21	....	25	22.5	224	31.8
Transportation	....	....	....	....	....	....	....	....	....	3	.4
Trade	1	....	1	2.2	....	2	....	2	1.8	15	2.1
Clerical occupations	4	1	5	11.1	5	11	2	18	16.2	115	16.4
Professional service	3	....	3	6.7	5	6	1	12	10.8	24	3.4
Domestic service	4	....	4	8.9	3	....	1	4	3.6	44	6.3
Total	25	5	30	66.7	17	40	4	61	54.9	425	60.4
Not earning.											
At home	12	2	14	31.1	15	34	1	50	45.1	275	39.1
At school	1	....	1	2.2	....	....	....	....	....	4	.5
Total	13	2	15	33.3	15	34	1	50	45.1	279	39.6
Grand total	38	7	45	100.0	32	74	5	111	100.0	704	100.0

As indicated in the above table, about one-third (31.8 per cent) of the pupils were in manufacturing industries (corsets, underwear, mattresses, shoes, and envelopes); more than one-fourth (28.6 per cent) were in occupations other than manufacturing, while almost two-fifths (39.6 per cent) were not earning, but were in their own homes. About one-half of those in manufacturing were in the needle trades, from which were drawn only 17.5 per cent of the 704 enrolled. One-sixth, then, of the number enrolled in the Worcester evening school in 1914-15 were engaged during the day in occupations allied to the courses taken in the evening, which is almost the same as the proportion (16.4 per cent) engaged in clerical occupations.

One-fifth (22.1 per cent) of the women enrolled in intermediate and advanced sewing and 13 per cent of the women enrolled in preliminary dressmaking were engaged during the day in the needle trades. The knowledge of sewing gained from their day occupations would seem to give these women some advantage in taking the advanced courses. But just as the women attending evening industrial schools belong to a group too advanced in age to profit most by the teaching, so they follow, to a large extent, during the day, occupations not at all allied to the evening courses.

One hundred and seventy-five of the 704 women enrolled in the Worcester evening school were married; all but four of these were at home. The variety of occupation, age, and marital condition of the pupils makes the problem of successful grouping extremely difficult; but the effort is made to keep women of about the same age and occupation in the same classes.

The question of irregularity of attendance at evening schools seems almost hopeless of solution as long as the pupils are busy in some capacity during the day. The Boston Evening Trade School serves a supper at small cost, so that the women may come direct from work to school. The Worcester evening school offers short courses, which terminate at fixed dates, and it requires a completion of one course before another is undertaken, thus putting a premium on regularity of attendance. This scheme has been very successful, as an average of 88 per cent of the women enrolled are present at each session, and those who can not come habitually telephone or send their excuse.

The chief problems, then, which are presented to educators in the evening vocational schools are how to attract (1) a larger proportion of young workers, and (2) a larger number of women employed in allied trades during the day; that is, how to present the advantages of the school to the classes most in need of them. Many workers engaged in the manufacture of clothing or straw hats were visited who wished there were some place where they could learn special machines or could work up speed. Although in some cases they lived within a few blocks of the trade school, they had never heard of it. Another problem is to secure regularity of attendance, so that the lessons may be of some real value to the worker. The successful development of these evening vocational courses must follow the line of the demands of the worker, which depend on the demands of the trade. These demands point to regularly organized short-unit courses with pupils having the same background and the same needs grouped together, and to close connection with the trade.

The length of term in all evening schools is from October 1 to April 1. In the Boston Evening Trade School, the pupils are expected to come three evenings and in the Worcester evening school two evenings a week. In Worcester, the school is in session four evenings a week, but the same classes meet on alternate evenings, and the session lasts two hours. In the Boston and Cambridge evening practical arts courses a course lasts through a school year. In Worcester, a short-unit system has been developed, each unit complete in itself. The units are so arranged that it is possible to progress from one subject to another, or to enter after the beginning of the term, when a new unit is begun. The units range in length from eight to twenty-four lessons. Millinery has four units of eight lessons each, two in the fall and two in the spring. During the winter the pupil in this course may take sewing, but only a few do so. Each pupil makes or trims a hat during each of the courses, and some make more than one. In plain sewing, which must be taken by all women who know nothing about needlework, there are four courses of 12 lessons each, the second half-year repeating the work of the first. Pupils work from the start on garments rather than on samplers, as in the Boston Evening Trade School. The garments made are an apron, dressing sack, corset cover, and nightgown. The plain skirt and plain waist, 12 lessons each, are both repeated four times. The courses in fancy waists and plain one-piece dresses are 16 lessons each, repeated twice, while advanced dressmaking, repeated once, is given in 24 lessons. This last course was designed primarily for dressmakers, but had to be taught in a more elementary way than was anticipated. One-third of the pupils enrolled in this course were at home and only 6 per cent were dressmakers. This is of interest because there is said to be a real need for more independent dressmakers who will go from house to house. The natural supposition would be that such a course would attract women who aspired to meet this demand. Children's clothing was offered, but as no one chose this course, it was discontinued.

Each pupil furnishes her own material for garments. The school supplies cotton cloth from which a flat bag with strings is made. At night the women fold their work and place it in their bags which are piled up and wrapped in bundles, which take little room and are free from dust. Each garment must be finished and inspected by the teacher in charge of the class and by the supervisor of the night work, who grades each garment, criticises it, and occasionally requires that some part be done over before it is taken home. The standard of finish is that of the shop. The advantages claimed for the system, aside from the regularity of attendance secured, are the interest of the pupils and its adaptability to their need. Some enter for only one or two units in September, while some enter in other months. Two-thirds (67 per cent) of the whole number came in September, and about one-tenth (11.8 per cent) in November, when the second units began. The school plans to offer the courses the pupils want most. This year the one-piece dress proved most popular. For next year the school plans to offer a course in cutting and fitting for its own graduates and others who are qualified to take such work.

The two tables which follow show, first, the plan of short-unit courses of the Worcester Girls' Independent Evening Trade School and, second, the number and per cent who entered the school in specified months from September, 1914, to March, 1915.

TABLE 146.—PLAN OF SHORT-UNIT COURSES OF THE WORCESTER GIRLS' INDEPENDENT EVENING TRADE SCHOOL, OCTOBER, 1914, TO APRIL, 1915.

Week beginning—	Courses in dressmaking.							Courses in millinery.
	Preliminary.				Intermediate.	Advanced.		
	Plain sewing.	Plain skirt.	Unlined waist.	Children's clothing.	Plain dress.	Fancy waist.	Advanced dressmaking.	
Sept. 28	12 lessons.	12 lessons.	12 lessons.	2 lessons.	16 lessons.	16 lessons.	24 lessons.	8 lessons.
Oct. 5				6 lessons.				
Oct. 12								
Oct. 19								
Oct. 26								
Nov. 2				4 lessons.				8 lessons.
Nov. 9								
Nov. 16	12 lessons.	12 lessons.	12 lessons.	6 lessons.				
Nov. 23					16 lessons.	16 lessons.		
Nov. 30								
Dec. 7				6 lessons.				
Dec. 14								
Jan. 4	12 lessons.	12 lessons.	12 lessons.	2 lessons.			24 lessons.	
Jan. 11								
Jan. 18				6 lessons.				
Jan. 25								
Feb. 1								
Feb. 8				4 lessons.	16 lessons.	16 lessons.		8 lessons.
Feb. 15								
Feb. 22	12 lessons.	12 lessons.	12 lessons.	6 lessons.				8 lessons.
Mar. 1								
Mar. 8								
Mar. 15				6 lessons.				
Mar. 22								

TABLE 147.—NUMBER AND PER CENT OF PUPILS WHO ENTERED THE WORCESTER GIRLS' INDEPENDENT EVENING TRADE SCHOOL IN SPECIFIED MONTHS, 1914-15.

Month.	Women entering school in specified months.	
	Number.	Per cent.
September	472	67.1
October	58	8.2
November	83	11.8
December	2	.3
January	44	6.2
February	41	5.8
March	4	.6
Total	704	100.0

In the Boston Evening Trade School, the day trade teachers give their services in the evening. They are thoroughly familiar with the subjects to be taught and the best way of presenting them. On the other hand, their hours in the day school are long, and they are not able to give to their work the freshness of energy which teachers from outside the school can bring. In Worcester, the school obtains its evening teachers from the trades. They are used to directing workers, but are less familiar than are the regular teachers with the pedagogy of the subject, and hence are apt to emphasize product rather than correct methods. The day trade-school teachers are not tired by evening work for their regular duties. Under this arrangement some one official must be given general supervision of the evening school work, as the teachers are not accustomed to the standardization of work necessary in a school. When the day trade-school teachers serve at night, this supervision is unnecessary.

The method of teaching in the evening industrial schools is that of practice, with so much of the theory as comes naturally with the lessons. The classes are small, the teacher supervises the women individually, making a class lesson of individual problems which apply to the work of all. In the Worcester evening school the pupils do all the cutting and fitting. The teacher supervises both processes. One pupil helps another with the draping; sometimes the teacher drapes one side of a waist on the form and the pupil drapes the other. The whole idea in the Worcester school is, not to help the women to get cheap dressmaking and millinery done, but to teach them the principles of both processes. In Boston each pupil is given all possible help on points of individual difficulty.

A study of the evening industrial schools for girls in Massachusetts, then, means a consideration of two types of school; first, the type which offers trade extension courses for women in allied trades during the day; second, practical arts courses for women employed in any capacity during the day. In both types of school the women over 21 years of age predominate, and in both there are relatively few women enrolled in courses which will help them directly in their day occupations. The evening industrial schools are, therefore, not yet fulfilling the need for advanced training of women workers in the trades. The tendency in the evening industrial schools, however, is toward greater systematization of teaching and standardization of product. There is yet to be developed a systematized program for continuation work of a really advanced character for young workers already in various trades. The short-unit method seems to be the most satisfactory system.

TABLE 148.—NUMBER AND PER CENT OF PUPILS TAKING SPECIFIED COURSES IN THE EVENING INDUSTRIAL AND TRADE SCHOOLS IN BOSTON, WORCESTER, AND CAMBRIDGE, 1913-14,[1] BY AGE GROUPS.

NUMBER.

Course.	Boston Evening Trade School for Girls.				Worcester Girls' Independent Evening Trade School.				Boston evening practical arts courses.				Cambridge evening practical arts courses.				Total.
	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	
Cooking	6	......	12	18	......	......	......	......	10	3	42	55	......	15	9	24	97
Dressmaking	8	8	32	48	251	196	287	734	253	61	343	657	56	58	179	293	1,732
Embroidery	......	......	......	......	......	......	......	......	28	22	92	142	9	16	43	68	210
Millinery	5	4	12	21	30	14	46	90	75	24	293	392	14	19	66	99	602
Power-machine operating	11	6	68	85	......	......	......	......	......	......	......	......	......	......	......	......	85
Total	30	18	124	[3] 172	281	210	333	[3] 824	366	110	770	[3] 1,246	79	108	297	[3] 484	2,726

PER CENT.

Course.	Boston Evening Trade School for Girls.				Worcester Girls' Independent Evening Trade School.				Boston evening practical arts courses.				Cambridge evening practical arts courses.				Total.
	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	17-21.[2]	21-25.[2]	Over 25.	Total.	
Cooking	33.4	......	66.6	100.0	......	......	......	......	18.2	5.4	76.4	100.0	....	62.5	37.5	100.0	....
Dressmaking	16.7	16.7	66.6	100.0	34.2	26.7	39.1	100.0	38.5	9.3	52.2	100.0	19.1	19.8	61.1	100.0	....
Embroidery	......	......	......	......	......	......	......	......	19.7	15.5	64.8	100.0	13.3	23.5	63.2	100.0	....
Millinery	23.8	19.1	57.1	100.0	33.3	15.5	51.1	100.0	19.1	6.1	74.8	100.0	14.1	19.2	66.7	100.0	....
Power-machine operating	12.9	7.1	80.0	100.0	......	......	......	......	......	......	......	......	......	......	......	......	....
Total	17.4	10.5	72.1	100.0	34.1	25.5	40.4	100.0	29.4	8.8	61.8	100.0	16.3	22.3	61.4	100.0	....

---

[1] Seventy-eighth Annual Report, Massachusetts Board of Education, pp. 262, 264, 268.

[2] Age groups are as given in report.

[3] "Total enrollment in evening schools will not add to equal total different numbers, since some are enrolled in more than one course." Idem, p. 262.

INDEX.

A.

Page.

- Academic courses of Worcester Trade School, 251
- Administration of girls' trade schools, 253–256
- Age:
  - At beginning work, as a factor determining wage advancement, 133–138
  - At beginning work, as affecting wages of Worcester Trade School girls, 162
  - At beginning work, effect on wages of trade-school girls, 133–136
  - At beginning work, effect on wages of trade-trained girls, 136–138
  - At leaving school, relation of, to utilization of trade training, 27–30
  - Boston Trade School girls, in relation to permanence in trade, 84, 85
  - Employment and, of Worcester Trade School girls, 154
  - Industrial distribution and, of Worcester Trade School girls studied, 149, 150
  - Industrial distribution, wages, and, of Cambridge Trade School girls, 169–171
  - Length of working experience and, of Boston Trade School girls studied, 70–72
  - Previous schooling and, of pupils entering the trade schools, 22–26
  - Pupils leaving the Boston Trade School, under private management, 1904 to 1909, and under public management, 1909 to 1914, 30
  - Trade-school girls, at beginning work, 186–188
- Aprons and rompers, opportunities and requirements in factories manufacturing, 226
- Area from which Boston Trade School girls are drawn, 173, 174
- Art courses of Worcester Trade School, 251
- Average wages. (*See* Wages.)

B.

- Basis of trade training, 195
- Boston Evening Trade School for Girls:
  - Age of pupils in, 259–262
  - Courses of, 258
  - Enrollment in, 258
- Boston Trade School for Girls:
  - Age and length of working experience of girls from, 70–72
  - Age of girls entering, 22, 23
  - Age of girls in relation to permanence in trade, 84, 85
  - Area from which girls are drawn, 173, 174
  - Average wages of girls compared with those of trade-trained girls, 105, 106
  - Average weekly wages of girls in successive years, 98–106
  - Classified weekly wages of girls in successive years in sewing trades, 107–113
  - Comparative wages of trade-school and trade-trained dressmakers and factory sewers at specified periods, 124–127
  - Courses offered in, 19, 20
  - Distance from school of girls, and persistence in attendance, 174, 175
  - Distance from school of girls, and use of trade, 175, 176
  - Effect of length of working experience of girls in determining wage advancement, 127–133
  - Effect on wages of girls of age at beginning work, 136–138
  - Enrollment in specified courses in, 20, 21
  - Establishment of, 8
  - Girls who used trade for which trained, 75–95
  - Growth of enrollment in, 15, 16
  - Industrial distribution of girls at end of specified periods out of school, 77, 78
  - Initial wage of girls, 114–116
  - Length of working season of girls by trades, 143–145
  - Movement of girls from one trade to another, or from one position to another, 88–90
  - Number and per cent of girls who did not use trade for which trained, 72–75
  - Placement of pupils by, 41–44
  - Policy in respect to initial wage, 114, 115
  - Previous schooling of pupils of, 24, 25
  - Rate of advance in wages of girls in different groups, 101, 102
  - Rate of wage advance of girls compared with initial wage, 115, 116
  - Reasons of girls for leaving primary trade, 93–95
  - Reasons of girls for never using their trades, 73, 74
  - Relation of wages of individual workers to average wage, 102, 103
  - Secondary employments of girls, 90–93
  - Shifting in industry of individual girls, 85–88
  - Stability in industry of girls who used their trades, 75–78
  - Stability of girls in trade for which trained, 78–90
  - Time required by different groups of girls to reach $8 a week, 101
  - Wages and length of working season of girls, 143–146
  - Wages and occupations of girls at specified periods in their working experience, 117–127
  - Wages and occupations of girls never using trade for which trained, 124
  - Wages of girls (Chapter IV), 97–147
  - Wages of girls remaining in trade for which trained and of those leaving it for other occupations, 99, 100, 117–123
  - Wages of girls trained for sewing trades, classified according to length of working season and trades, 145, 146
  - Wages of girls who never used trade for which trained, 100, 101
  - Wages of trade-school dressmakers classified according to previous schooling, 138–141

C.

Page.

- Cambridge evening industrial schools for girls, ages of pupils in........ 259-262
- Cambridge Girls' Trade School:
  - Age, industrial distribution, and wages of girls studied........ 169-171
  - Age of girls entering........ 22, 23
  - Courses offered in........ 19, 20
  - Enrollment in specified courses in........ 21
  - Establishment of........ 8
  - Previous schooling of pupils of........ 24-28
- Children's dresses, opportunities and requirements in factories manufacturing........ 222, 223
- Conclusions suggested by survey........ 238-242
- Cookery, general, courses in, Worcester Trade School........ 251, 252
- Cost:
  - Maintenance, of trade schools........ 254
  - Of teaching in the factory........ 231, 232
  - Of Worcester Trade School plant........ 254
  - Per capita, of trade schools........ 254, 255
- Courses:
  - Academic, of Worcester Trade School........ 251
  - Art, of Worcester Trade School........ 251
  - Boston, Worcester, Cambridge, and Somerville trade schools........ 19, 20
  - Customs sewing trades, reasons for relatively high enrollment in........ 21, 22
  - Departments in the Worcester Trade School........ 246-253
  - Physical education in Worcester Trade School........ 252
  - Short-unit, Worcester Girls' Independent Evening Trade School........ 266-268
  - Summer-school, offered by Boston and Worcester trade schools........ 35
  - Trade schools........ 243-246
  - Trade schools, relative demand for the different........ 20-22
- Courses and administration of the trade schools for girls in Massachusetts (Appendix A)........ 243-246
- Curtains, opportunities and requirements in factories manufacturing........ 227
- Custom dressmaking. (*See* Dressmaking; Sewing trades.)
- Custom sewing trades. (*See* Dressmaking; Sewing trades.)
- Custom work, decrease of, and growth of factory work in millinery........ 205-208

D.

- Dresses and waists, opportunities and requirements in factories manufacturing........ 217-221
- Dressmaking:
  - Course in, of Worcester Trade School........ 247, 248
  - Custom, attitude of employers toward beginners........ 201, 202
  - Custom, attitude of employers toward trade schools and trade-school girls........ 202-205
  - Custom, evolution of........ 200-205
  - Factory sewing trades and comparative wages of trade-school and trade-trained girls in, at specified periods........ 124-127
  - Stability in, of girls trained in Boston Trade School........ 80
  - Time required by Boston Trade School girls to reach $8 a week in........ 101
  - Wages of trade-school and trade-trained girls classified according to previous schooling........ 141, 142
  - (*See also* Sewing trades.)
- Dual control of trade schools........ 253, 254

E.

- Earnings. (*See* Wages.)
- Economic status of families of trade-school girls........ 182-188
- Education. (*See* Schooling.)
- Education, academic, and trade-school training as affecting wages of Worcester Trade School girls........ 162, 163
- Education, academic, as a factor determining wage advancement........ 138-142
- Employers, cooperation between, and trade school........ 63, 64
- Employment of Worcester Trade School girls in successive years........ 150-153
- Enrollment in specified courses in Boston, Worcester, and Cambridge trade schools........ 20, 21
- Enrollment in trade schools and other public schools, comparison of growth of........ 15, 16
- Enrollment in trade schools, growth of........ 15, 16
- Evening industrial schools for girls (Appendix B)........ 257-269
- Evening industrial schools for girls, method of teaching in........ 268, 269
- Evening schools. (*See* Boston Evening Trade School for Girls; Worcester Girls' Independent Evening Trade School.)
- Evening vocational schools. (*See* Vocational schools.)

F.

- Factors affecting wages of Worcester Trade School girls........ 160-163
- Factors determining wage advancement........ 127-142
- Family condition of trade-school girls........ 188, 189
- Family income, contribution to, by trade-school girls........ 189-192

G.

- Girl who has been trained in the trade school, the (Chapter VI)........ 173-194

H.

- High School of Practical Arts in Boston, enrollment and number of graduates using trades taught........ 65

I.

- Income. (*See* Family income; Wages.)
- Industrial distribution, age, and wages of Cambridge Trade School girls studied........ 169-171
- Industrial distribution and age of Worcester Trade School girls studied........ 149, 150
- Industrial distribution of Boston Trade School girls at end of specified periods out of school........ 77, 78

Page.
Industrial education, new questions involved in ... 9, 10
Industrial experience:
- Boston Trade School girls (Chapter III) ... 67–96
- Length of, and age of Boston Trade School girls ... 70–72
- Length of, as a factor determining wage advancement ... 127–133
- Trade-school girl's, statistical basis of study of ... 69
- Wages and, of Worcester and Cambridge trade-school girls (Chapter V) ... 119–172

Industrial needs and opportunities, necessity for understanding and recognition by trade educators ... 171, 172
Industries for which trade schools train (Chapter VII) ... 195–233

M.

Marriage as an interruption to working career of trade-school girls ... 192, 193
Massachusetts State-aided evening vocational schools for women, types of ... 257, 258
Massachusetts, trade schools for girls in, growth of ... 8, 9
Methods by which trade-school pupils secure positions ... 64, 65
Methods of learning in the power-machine sewing trades ... 230, 231
Millinery:
- Attitude of employers toward trade-school girls ... 208, 209
- Course in, of Worcester Trade School ... 249, 250
- Evolution of trade ... 205–210
- Growth of factory and decrease of custom work in ... 205–208
- Stability in, of girls trained in Boston Trade School ... 80
- Time required by Boston Trade School girls to reach $8 a week in ... 101
- (*See also* Sewing trades.)

Movement of Boston Trade School girls from one trade to another, or from one position to another .. 88–90

N.

Nativity of trade-school girls ... 176–181
Neckwear, opportunities and requirements in factories manufacturing ... 221, 222

O.

Occupations. (*See* Secondary employments.)
Occupations and wages at specified periods of Worcester Trade School girls ... 157–160
Occupations and wages of Boston Trade School girls at specified periods in their working experience ... 117–127
Occupations of fathers of trade-school girls ... 182–184

P.

Physical-education courses in Worcester Trade School ... 252
Placement of pupils by Boston Trade School ... 41–44
Power-machine operating:
- Course in, of Worcester Trade School ... 248, 249
- Relative cost to employer of training a trade-school girl and an untrained girl ... 51, 52
- Stability in, of girls trained in Boston Trade School ... 80, 81
- Time required by Boston Trade School girls to reach $8 a week in ... 101
- (*See also* Sewing trades.)

Program of each girl in day classes of Worcester Trade School ... 252, 253

R.

Reasons for leaving primary trade, given by Boston Trade School girls ... 93–95
Reasons for not using trade given by Worcester Trade School girls ... 154, 155
Reasons given by Boston Trade School girls for never using their trades ... 73, 74
Reasons given by girls for entering trade schools ... 25, 26
Reasons given by girls for leaving trade schools ... 44–46
Rompers. (*See* Aprons and rompers.)

S.

School problem, the (Chapter II) ... 15–46
School tests for ascertaining trade ability ... 55–58
Schooling:
- Previous, and age of pupils entering the trade schools ... 22–26
- Previous, relation between, and tendency to enter trade for which trained ... 30–34
- Previous, wages of trade-school dressmakers classified according to ... 138–141

Schools. (*See* Boston Evening Trade School for Girls; Boston Trade School for Girls; Cambridge Girls' Trade School; High School of Practical Arts in Boston; Somerville Vocational School for Girls; Trade schools for girls; Worcester Girls' Independent Evening Trade School; Worcester Girls' Trade School.)
Scope of trade-school work, prevailing misconceptions of ... 46–48
Secondary employments of Boston Trade School girls ... 90–93
Sessions, day, of trade schools, hours of, and time devoted to specified studies ... 35
Sewing trades:
- Academic education an important factor in success of women in ... 32–34
- Classified weekly wages in successive years in, of Boston Trade School girls ... 107–113
- Custom, courses in, reasons for relatively high enrollment in ... 21, 22
- Custom, effect of changes in, upon opportunities for trade-school girls ... 209, 210
- Custom, evolution of custom dressmaking ... 200–205
- Custom, evolution of millinery trade ... 205–210
- Power-machine, amount of shifting among employees ... 232, 233

- Sewing trades—Concluded. Page.
  - Power-machine, analysis of characteristics of production in factories making light-weight products........ 214-217
  - Power-machine, cost of teaching in the factory........ 231, 232
  - Power-machine, extent and character of, in Boston and Worcester........ 213, 214
  - Power-machine, extent to which taught in trade schools........ 210
  - Power-machine, list of subtrades........ 211
  - Power-machine, methods of learning in........ 230, 231
  - Power-machine, need of training for........ 211-213
  - Power-machine, opportunities and requirements in different branches of........ 217-230
  - Trade-trained girls in, Worcester........ 165-168
  - Wages of trade-school girls trained for, classified according to length of working season and trades. 145, 146
  - (*See also* Dressmaking; Millinery; Power-machine operating.)
- Shifting among factory employees, amount of........ 232, 233
- Shifting in industry of individual Boston Trade School girls........ 85-88
- Shifting in industry of untrained girls........ 87, 88
- Shirts, opportunities and requirements in factories manufacturing........ 226
- Short-unit courses of Worcester Girls' Independent Evening Trade School........ 266-268
- Sifting-out process in schools........ 75-77
- Skirts, opportunities and requirements in factories manufacturing........ 227, 228
- Somerville Vocational School for Girls:
  - Age of girls entering........ 22, 23
  - Courses offered in........ 19, 20
  - Establishment of........ 8
- Stability in industry of Boston Trade School girls who used their trades........ 75-78
- Stability in trade for which trained of Boston Trade School girls........ 78-90
- Stability of trade-school girls in trade positions........ 60-63
- State-aided evening vocational schools for women in Massachusetts, types of........ 257, 258
- Straw hats, opportunities and requirements in factories manufacturing........ 229, 230
- Summary and conclusions (Chapter VIII)........ 235-242
- Summer-school courses offered by Boston and Worcester trade schools........ 35
- Survey, conclusions suggested by........ 238-242
- Survey, purpose, methods, and scope of........ 10-12
- Systems of local administration of trade schools in operation........ 253

T.

- Test applied to vocational schools........ 67
- Time actually spent in trade school by pupils........ 35-38
- Trade ability, school tests for ascertaining........ 55-58
- Trade cooking, course in, of Worcester Trade School........ 260
- Trade demands, special methods for adapting trade-school pupils to........ 58-60
- Trade-school experience, facts shown by........ 66
- Trade-school training, difficulty of determining effectiveness of........ 67-69
- Trade schools for girls:
  - Aim of leaders in movement to establish........ 15
  - Cooperation between, and employers........ 63, 64
  - Courses in........ 243-246
  - Courses in, and administration of, in Massachusetts........ 243-246
  - Establishment of first, in United States........ 8
  - Growth of, in Massachusetts........ 8, 9
  - Maintenance and per capita cost of........ 254, 255
  - Methods by which pupils of, secure positions........ 64, 65
  - Noncompetitive character of........ 16-18
  - Reasons given by pupils entering summer session for not remaining for full session........ 57
  - Reasons of pupils for leaving........ 44-46
  - Revenue from sale of product of........ 255, 256
  - Special methods for adapting pupils to trade demands........ 58-60
  - Stability of pupils of, in trade positions........ 60-63
  - (*See also* Boston Trade School for Girls; Cambridge Girls' Trade School; Somerville Vocational School for Girls; Worcester Girls' Trade School.)
- Trade-school girls:
  - Adjustment of, to the trade........ 48-55
  - Age at beginning work........ 186-188
  - Contribution of, to family income........ 189-192
  - Effect of changes in custom sewing trades upon opportunities for........ 209, 210
  - Employment of, during interval between grammar-school and trade-school attendance........ 184-186
  - Family condition of........ 188, 189
  - Marriage as an interruption to working career of........ 192, 193
  - Nativity of........ 176-181
  - Occupations of fathers of........ 182-184
  - (*See also* Boston Trade School for Girls; Cambridge Girls' Trade School; Somerville Vocational School for Girls; Worcester Girls' Trade School.)
- Trade-school training, length of, effect upon permanence in trade........ 40, 41
- Trade-school work, prevailing misconceptions of scope of........ 46-48
- Trade-trained dressmakers, wages of, classified according to previous schooling........ 141, 142
- Trade-trained girls:
  - Average wages of, Boston........ 103-105
  - Average wages of, compared with those of Boston Trade School girls........ 105, 106
  - Classified weekly wages in successive years in sewing trades, Boston........ 111-113
  - Effect of length of working experience in determining wage advancement, Boston........ 127-133
  - Effect on wages of age at beginning work........ 136-138
  - Occupations and wages of sewing girls in Worcester........ 165-168
- Trade training for girls:
  - Basis of........ 195
  - Degree to which utilized........ 26, 27
  - Length of, distribution of girls using their trades by........ 38-41
  - Problem of........ 7, 8
  - Relation of age at leaving trade school to utilization of........ 27-30
- Trades taught in Boston, Worcester, Cambridge, and Somerville trade schools........ 19, 20
- Trades to be taught in trade schools, bases of selection of........ 19